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ABSTRACT

In most developed countries a majority of the citizens benefit from extensive educational opportunities, yet there is a growing number of people in these same countries who are educationally disadvantaged because of their sociocultural backgrounds. There are four stages of educational disadvantage including: (1) limited experiences in early childhood; (2) restricted learning experience at school; (3) transition support services; and (4) second-chance learning. Educational leaders in Australia are making an attempt to address the problem of educational disadvantage. One strategy they have used is to learn from the research and experiences of other developed countries. This report is an assemblage of pertinent data on educational disadvantage and its related programs and policies gathered from Australia, the United States and Great Britain. The six chapters are as follows: (1) Equity Issues in Australian Education; (2) The Nature of Educational Disadvantage; (3) Research and Evaluation: The Findings from Overseas; (4) Australian Research into Educational Disadvantage; (5) The Disadvantaged Schools Program; and (6) Overcoming Educational Disadvantage. A 175-item list of references is included. (VM)

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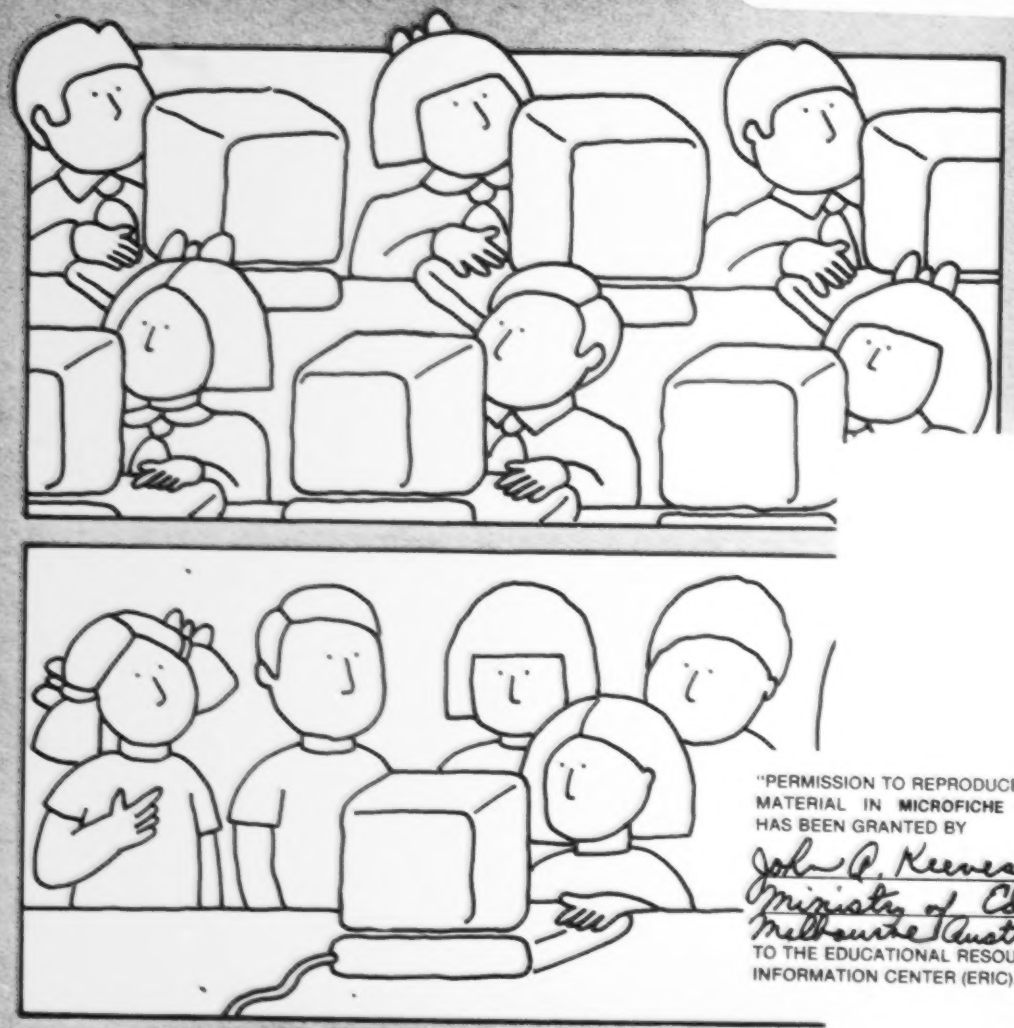

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Foreword

School communities have become increasingly responsible for curriculum planning and decision making within the frameworks of government policies on education. One of the major thrusts of government policies, at both State and commonwealth level has been the redress of educational disadvantage. Such policies are also common in other parts of the world. We need to learn as much as we can from experience and research elsewhere in the world as well as in Australia in developing our own strategies.

Equitable Opportunities in Australian Education was prepared by Dr Keeves under contract with the Schools Division of the Victorian Ministry of Education using funds made available through the Participation and Equity Program. The report provides a comprehensive analysis of educational practices designed to redress disadvantage and draws a number of conclusions which should guide educational policy making at school and system level.

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1. Equity Issues in Australian Education

The twenty years following World War II, in marked contrast to the decade prior to the War, were ones of increasing affluence in most developed countries. Moreover, these years were associated with a growth in the systems of education in these countries, a growth not only to cope with the bulge in births but also to make both postprimary and tertiary education more widely available to those who could profit from it. Nevertheless, while a majority of the people within the developed countries were benefiting from both increased wealth and more extensive opportunities for education, there were subgroups in most societies who suffered severely from poverty. The members of these subgroups were educationally disadvantaged, because their social and cultural backgrounds limited their acquisition of knowledge and skills, and were also deprived of educational opportunities because, for a variety of social, political and cultural reasons, the facilities of preschools, schools and institutions of higher education were only accessible to them in restricted form. As a consequence, they were seen to be trapped within a cycle of poverty with little chance of sharing the affluence and opportunities for a constructive adult life that were becoming more widely available.

It was argued, initially by Bloom, Davis and Hess (1965) in the United States, that compensatory education programs could provide the way for the members of these subgroups—the lower socioeconomic classes, the unassimilated ethnic minorities, the newly arrived migrants, the isolated rural and urban populations, and itinerant and nomadic groups—to break out of the cycle of poverty. Gradually a range of services of a compensatory nature were established in such countries as the United States, the United Kingdom, Sweden and Australia. High hopes were held for these programs, which have been the subject of widespread investigation and scholarly debate.

Greater equality of educational opportunity is, however, not an end in itself, but as suggested above is seen by many as a means for the reduction of economic and social inequality. Secondly, in societies where there is a drive to take advantage of technological developments, it is necessary for as many as possible in the society to be educated to carry out the increasingly complex work required of them. Thus, there is a wastage of talent if all members of a nation do not have opportunities for training in the complex skills demanded for life and work in a modern urban society. A third reason advanced for providing compensatory education programs is that poorly educated adults are a direct drain on a society because of the heavy costs of support services which are necessary to sustain those who cannot be gainfully employed or lead a constructive adult life. Finally, it is important to recognise that in Western societies there is a strong humanitarian ethos, held by some because of their religious principles, which involves the ideals of equity and social justice. There is little doubt that such ideals have motivated many to work passionately for social and educational change.

Boudon (1974) has claimed that while Western industrial societies have been characterised since World War II by a significant increase in opportunities for education, there has been little change in the inequalities of social opportunity and an increase rather than a

decrease in economic inequality. On the one hand, this leads those with more radical views to advocate that education should be used to promote alternative solutions to the problems of social and economic inequality. On the other hand, particularly in the United States, there has been a serious questioning of the effectiveness of compensatory education programs by those with more conservative views. This questioning has occurred because the educational gains have been slight and the programs have made little contribution to increasing the competence of those at the bottom of the social and economic scales. However, the Secretariat of the Centre for Educational Research and Innovation in Paris has pointed out, in regard to the quest for greater equality of educational opportunity, that:

> We have learned by experience, if we did not realise it originally, that this is not basically an educational question but a social one, whether it is disparity by socio-economic status or the problem of ethnic or religious minorities. (OECD, 1973, p.13.)

It is evident that educational reform cannot operate as a substitute for economic and social reform. Nevertheless, education must clearly contribute, alongside fiscal policies and housing and other social programs, to the reform of society.

Husēn (1981) has warned of the dangers of the formation of an "educational underclass", comprising perhaps 10 to 20 per cent of our society, who have not progressed far enough in their education to possess the skills necessary for the more sophisticated work required of them in a technological society and for whom there are few opportunities for regular employment. The existence of such a group, members of which might be expected at best to gain intermittent employment throughout their adult lives, would appear to be gaining recognition. On leaving school at the age of 15 years, and at the end of the period of compulsory schooling, many students are unable to find work and face a lifetime of irregular employment—all too frequently because they lack the basic skills that education sought to provide. It is necessary to consider whether, had suitable programs of compensatory education been provided at appropriate stages in their lives, gainful employment could have been found for them and their relegation to the "educational underclass" could have been avoided. There is now a growing body of research and evaluation studies available that can contribute to answering these questions. It is the purpose of this monograph to review this research, which has been carried out in Australia and overseas, and to make recommendations on how educational systems in Australia might best provide effective programs to reduce this problem of an "educational underclass".

There are many subgroups in Australian society that are at risk, and the characteristics of these groups—race, unemployment, ethnicity, physical disability, place of residence and occupational classification—are commonly seen as indicators of educational disadvantage. Many who suffer these handicaps possess more than one characteristic associated with disadvantage. However, the largest group possesses the common characteristics of low social and economic status or social class disadvantages. Consequently, the discussion in this monograph

will be limited to the nature of the problems, the research into the problems, and the educational policies and programs that have been developed to assist this group. Educational policies and programs are not necessarily limited to children and youth, and it is important to recognise that some valuable programs to overcome educational disadvantage have not been directed to students at school. Nevertheless, one important focus for such programs involves those children of school age who are socially and economically disadvantaged.

During the past decade, since the release of the *Report of the Interim Committee for the Australian Schools Commission* (Karmel, 1973), programs have been introduced into Australian schools to combat educational disadvantage. It might be expected that the operation of these programs would have contributed significantly to reduce the magnitude of the problem. However, during this period there have been substantial changes both in the size of the child population and in the numbers of children who are economically disadvantaged and who are dependent on pension and social welfare beneficiaries. In Table 1, information has been recorded for the years 1973-1984 on: (1) the numbers of children aged 0 to 15 years in Australia; (2) the numbers of children estimated to be in poverty; (3) the numbers of children aged 0 to 15 years dependent on pension and social welfare beneficiaries; and (4) the proportion of the child population dependent on such benefits.

Table 1 Estimated Numbers of Children at Risk in Australia: 1973–1984

Year	Children Aged 0-15 Years '000s	Children in Poverty '000s	Children Dependent on Benefits '000s	Proportion of Children on Benefits %	Index for Proportion of Children on Benefits. 1973 Base Year
1973	4059.0	254.4	176.0*	4.3	100
1974	4077.9		239.0*	5.9	135
1975	4076.0		307.9	7.6	174
1976	4053.2		361.5	8.9	206
1977	4027.5		406.4	10.1	233
1978	4004.8	460.4	448.9	11.2	259
1979	3977.7	457.4	464.4	11.7	269
1980	3961.5		487.2	12.3	284
1981	3974.1		542.5	13.7	315
1982	3997.0	614.5	588.9	14.7	340
1983	4004.9		722.3	18.0	416
1984	3999.3		708.7	17.7	409

*Minor estimations made.
Sources: Commonwealth Department of Social Security;
Australian Bureau of Statistics Bulletins.

The presentation of this information follows the work of Ruby and his colleagues in a *Report of the National Review of the Disadvantaged Schools Program* (Ruby, Redden, Sobski and Wilmot, 1985). While the estimated numbers of children in poverty does not agree exactly with the numbers of children dependent on benefits, the two sets of data, although incomplete, are in general agreement and provide an index of

the numbers of children in Australian society who must be considered to be disadvantaged because of social and economic handicaps. Furthermore, it must be noted that over the period of a little more than a decade there has been a four-fold increase in the numbers and the proportions of Australian children who must be considered to be at risk. If special programs were needed a decade ago to combat problems of educational disadvantage, then a strong case must be argued for an extension of these programs in order to maintain what is seen to be a necessary service to Australian children. Clearly, as a consequence of the changing conditions in the Australian economy, a significantly greater strain is being placed on Australian educational services that are designed to overcome educational disadvantage and to provide greater equality in opportunities for education.

Under these circumstances, it would appear necessary that research into the effectiveness of programs to overcome educational disadvantage carried out both in Australia and overseas should be reviewed, and an attempt made to identify the most effective strategies. It must also be recognised that the resources available for such programs are not unlimited and that attempts must be made to optimise the benefits. Moreover, with the problem growing, it is necessary that serious consideration should be given at both the Commonwealth and State levels to identifying priorities for appropriate educational programs, to ensure that greater equity is achieved and that the needs of those at greatest risk are being met.

In the years immediately after the release of the report of the Interim Committee for the Australian Schools Commission, there was concern for increasing the inputs into Australian education. After the target standards had been reached, it was perhaps inevitable that attention should have been directed towards the outcomes of education. The Quality of Education Review Committee (1985) has considered issues relating to achieving equality of educational outcomes as an indicator of success in combating educational disadvantage. There are four commonly sought objectives related to the concept of "equal opportunity" as viewed with respect to outcomes. First, there is the view or principle that, although the same results with respect to educational achievement could not be obtained from individuals, the same results might be expected from social groups if compensatory measures were successful (Karmel, 1985). Secondly, there is the view that if educational programs for the disadvantaged were successful—for example, if a reduction in class size was undertaken as a compensatory measure—then individuals, although differing in initial performance, would make the same progress on measures of educational achievements. This question has been considered by Larkin and Keeves (1984) in an analytical study of classroom groups of different sizes. Thirdly, there is the view that social groups of different sizes should be represented in the same proportions in, for example, institutions of higher education. This issue has been raised by Kramer (1985) and Hudson (1985). Fourthly, there is the view that high proportions of students from different social groups should achieve, on tests of the basic skills, mastery at a minimum level of performance that

provides a threshold for effective participation in society and for effective learning during further time at school. The Schools Commission has challenged this perspective, not from the desirability of the goal, but rather as to whether the attainment of this goal can be assessed with appropriately designed tests (Australia, Commonwealth Schools Commission, 1985). These four issues are currently being discussed in Australian education. They would appear to be central to the debate on equity and equality of educational opportunity. This review may not be able to provide complete answers. However, these and related questions are examined to provide guidance for educational policy and practice.

2. The Nature of Educational Disadvantage

There are at least four stages in education, as it is presently conceived, where disadvantage can be found and where programs can be introduced to compensate for disadvantage. However, the relative importance of disadvantage which might be experienced at these four stages will vary across countries according to the provision for education within a country, historical patterns of immigration and development, the social composition of the country, and the economy of the country. Nevertheless, there is a high degree of similarity across most developed countries in the nature of educational disadvantages and the origins of deprivation or hardship encountered. These four stages are considerd below.

LIMITED EXPERIENCES IN EARLY CHILDHOOD

The publication by Hunt, in 1961, of *Intelligence and Experience*, and by Bloom, in 1964, of *Stability and Change in Human Characteristics* drew attention to the substantial bodies of research which had established that the environments experienced by a child during the early years contributed significantly to the child's intellectual development. In addition, Bloom showed that the years of early childhood were indeed crucial for the intellectual, emotional and physical wellbeing not only of the child, but also to a highly significant extent of the adult the child becomes. Bloom, by examining the growth curves for different aspects of intellectual, physical and emotional development, found that the curves differed from characteristic to characteristic, with growth or change at some stages of development being more rapid than at other stages. It was noteworthy that for some of the more important characteristics, development was most rapid during the first five years of life.

RESTRICTED LEARNING EXPERIENCES AT SCHOOL

For many children in our schools, the lack of adequate resources and the failure to deploy resources most appropriately result in limited opportunities for complete learning of the basic skills necessary for them to function effectively, both in the classroom and subsequently in the adult world. Among the shortcomings are:

1. the use of inappropriate teaching strategies and curricula that ignore the different modes of learning and language of children from a disadvantaged background;

2. the failure to provide individual and small group tuition at critical times in classroom learning;

3. the failure to establish procedures that maintain effective relationships between the home and the school so that each will reinforce the other; and

4. the failure to maintain a high level of morale and practices promoting cooperative learning within the classroom.

TRANSITION SUPPORT SERVICES

As indicated above, at the time of a student's transition from school to work, particularly for those who are deficient in the competencies of reading, writing and computation and who do not possess the skills or hold attitudes that ensure the obtaining of regular employment, there is commonly a lack of suitable support services that would assist the student to find work, or would guarantee further training if work were not available. This area of educational disadvantage is relatively new. While there have always been some young people who have suffered significantly at this stage in their lives, there is little doubt that the problem has become greatly accentuated during the past decade when the proportion of young people who left school and were unable to find regular employment increased markedly. It is also apparent that short-term solutions lasting a few months are inadequate, because the duration of this stage of transition for some may last from five to ten years.

SECOND-CHANCE LEARNING

Husén (1979) has drawn attention to the growing alienation of some young people in many developed countries with schools as they exist. The tendency is then for these youth to drop out from school, and find employment if possible. However, some of these young people, like their counterparts in earlier generations who left school at the end of compulsory schooling, have sought later in life a chance to return to college or university to undertake further study. Such study would fit them for more appropriate employment and would provide greater personal fulfilment. The provision of such study opportunities would require both greater flexibility in the educational system than has been available in the past and the provision of special grants and loan services to enable the mature-aged student to return for further study.

While each of the four fields of educational deprivation discussed above is different in kind, the likelihood of a person experiencing disadvantage in any one of the four fields is greater if that person comes from a lower social or economic status group. Nevertheless, the educational system faces certain dilemmas in providing equal opportunities for all in education, as Husén (1972) has pointed out. An important function of the school and the educational system is to teach certain skills and competencies. In the normal classroom, where the teacher is confronted with students who have attained different levels of preparation for the work to be learnt, have different levels of ability to comprehend the ideas being presented, and different levels of motivation to achieve the goals being set, there is the dilemma of allowing each student to learn at his or her own pace or of holding the class group together to achieve equality in outcomes. There is a second related dilemma associated with the requirement that, on the one hand, the school should sort and sift the individuals passing through in a manner that is fair and just and, on the other, that it should meet the demands of all individuals to ensure that their talents are developed to the full. The characteristics of students that must be

considered are concerned both with "merit" and with "need". Whereas "merit" in education is commonly associated with ability, aptitude and effort and must be rewarded, "need" might involve either a cognitive deficit of a student, a deficit that must be provided for by compensatory action, or an affective want that must be met by success or praise. The teacher must maintain an appropriate balance when considering the merits and the needs of an individual, since these may lead to very different courses of action. In addition, the teacher must also maintain a balance in the treatment of the individual relative to the class group to which that individual belongs.

Three Aspects of Disadvantage

It is clear that, through both their merits and needs, individuals have the capacity to influence the educational treatments they receive. Eckland (1971) proposed the standard deprivation model of the relationship between parental status, the home environment and the developed ability of the child. It must be recognised that such a model is incomplete since it ignores the contribution of the parents' ability—a contribution to their status and the home environment they provide for the child, as well as through the genetic endowment they pass on to the child. It is commonly assumed, although some would question the assumption, that some children are advantaged and others disadvantaged by the quality of the genetic material they inherit from their parents. This may be viewed for those less fortunate as deprivation of the first kind. Since parents of high ability might be expected to provide a greatly enriched and stimulating educational environment for their children and parents of lesser ability are more likely to provide an environment of lower quality, such environmental deficits can be considered to involve deprivation of a second kind. In addition, those children of greater ability, which is developed from an interplay between genetic endowment and an educative environment, either through conscious choice or through unconscious preferences, have greater control over the educational emphases of their home and school environments, while those children of lesser ability have a lower degree of control over their environments. This interaction between the individual child and his or her environment gives rise to what may be considered for those of lesser ability as deprivation of a third kind.

Clearly, there is nothing that the educator can do to compensate directly for deprivation of the first kind. However, programs of intervention should endeavor to counter deprivation of the second kind, initially through the environment of the home and subsequently through the environment provided by the school. Perhaps greater problems arise in compensating for deprivation of the third kind. This involves an assessment of the needs of the individual and the provision of appropriate programs to fulfil those needs. Since this is the stage at which individuals interact with their environments, they may seek some say concerning the nature and quality of the treatments provided. In so far as this choice cannot rightly be denied an individual, it would seem essential that programs which involve compensation of the third kind must be highly flexible to allow the individual further choice if an initial opportunity is rejected.

The Concepts of Equity and Equal Opportunity

For a long period policies of equal provision have been maintained in Australian education. However, during the past two years, the term equity has been introduced (for example, Commonwealth Schools Commission, 1984). While much has been written on the concept of "equal opportunity", particularly as it applies to the distribution of educational resources, the concept of "equity" has been less widely discussed, but is employed increasingly in the debate on educational issues. In the future the term "equity" may be more widely employed to avoid confusion with the term "equal opportunity" as it is now used in the field of employment and in other areas of social policy.

Coleman (1968), following the completion of the report on the *Equality of Educational Opportunity*, which he prepared with the assistance of a team of educational research workers (see Coleman, Campbell, Holson, McPartland, Mood, Weinfield and York, 1966), discussed the concept of "equality of educational opportunity", and noted that the concept had changed radically during recent years and was likely to undergo further change in the future. Of the changes which had occurred, an important aspect concerned the nature of the opportunities provided by education. The public schools in the United States have sought to provide an education within easy geographic access of the student, without direct cost to the student and with a curriculum that would not exclude the student from higher education. Also, the public schools in America have sought to introduce the student to a common way of life in which there was social equality. Australian government or State schools, as Partridge (1968) has pointed out, have thought more of the opportunities they provide for the individual student rather than the kind of larger society to which the student is being introduced. This difference in emphasis is reflected in the relative sizes of the nonpublic school sectors in the two countries. It is the magnitude of the Catholic systemic school and the independent school sectors in Australian education that has given rise to special problems in providing equality of opportunity in education in this country. In addition, the need to provide a curriculum at the postprimary school level that does not deny a student the opportunity to participate in higher education gives rise to the special problems which currently confront education in Australia at the postcompulsory level of schooling.

The expansion in American education since World War II led Coleman away from considering equality of opportunity in education in terms of the resources provided for education towards a concept of equality of opportunity that was concerned with the effects of schooling and the results achieved by the school. Thus, in the survey that Coleman and his co-workers carried out, equality of opportunity was conceived of in terms of equality in the results of schooling as assessed by achievement tests and attitude scales.

In a discussion of the concepts of "equity" and "equal opportunity" as they apply in education, Burbules, Lord and Sherman (1982) have drawn attention to principles of distributive justice involved that can be

traced back to Aristotle, and are referred to as the "Equality Principle" and the "Fairness Principle", namely: "Treat equals equally and unequals unequally". However, these principles lack relevance until it is clear in what respects persons are to be considered equal and unequal. Moreover, the separation of the two principles of equality and fairness is to some extent artificial since they are clearly related and complementary and both are associated with the concepts of "equal opportunity" and "equity" as they are commonly used.

To apply these two principles, it is necessary to determine criteria for identifying individuals or groups of individuals as equals or unequals. As we have noted above two criteria are commonly employed—namely, criteria concerned with "merit" and with "need"—and their application poses some problems. First, they do not lie along a common dimension, and secondly, the relevant characteristics of both "merit" and "need" must be defined. In order to apply these principles four tasks must be accomplished before what are necessarily limited resources can be distributed.

1. The relevant characteristics for the distribution of resources must be identified and such characteristics must be assessed as relevant with respect to given ends.
2. Individuals must be assessed with respect to these characteristics, and in terms of both merit and need.
3. In the distribution of resources, the assessed merit and the assessed need must be balanced against the level of resources available.
4. Those who are equal must be treated equally and be seen to be treated equally, and those who are unequal must be treated unequally in an agreed manner, and in a way that is seen to be fair.

The application of these principles is clearly a significant departure from what is commonly considered to be equal treatment or even the provision of equal opportunity, and Burbules, Lord and Sherman propose the use of the term:

> "equitable opportunity", where "equitable" means equal, relative to those who are relevantly the same, and fair, relative to those who are relevantly different. (Burbules, Lord and Sherman, 1982, p.174.)

In addition, Burbules and his colleagues draw attention to subtleties associated with defining the concept of "opportunity". An opportunity has an evaluative component and would appear to involve the making of a choice. Consequently, respect for free choice is associated with most uses of "opportunity". However, choice can only be fully exercised if appropriate conditions of access are available and if the person making the choice possesses criteria that would enable the person to make full use of the opportunity.

The quest for equality of outcomes that was raised initially by the Coleman et al. study titled *Equality of Educational Opportunity*, while attractive in many respects, creates an unattainable and illusory goal. There are many reasons for this. First, resources are necessarily limited and a balance must be achieved in their distribution. This is unlikely to produce equality of outcomes. Secondly, the resources which are

distributed must be allocated according to both merit and need and once again a balance must be achieved that is unlikely to produce equality of outcomes. Thirdly, since an opportunity involves the subsequent exercising of choice, the setting up of a goal of equal outcomes denies the individual or the group the free will associated with the choice. Clearly, the use of the term "equal opportunity" should be avoided, because "equality" would appear to be associated with unattainable goals. In its place the use of the term "equitable opportunity" does not deny a sense of equality of provision, but also involves an overriding sense of fairness in the development of policies associated with the education of the disadvantaged and the application of compensatory education programs.

There are certain problems associated with establishing a goal for education associated with equality of results. First, as Burbules, Lord and Sherman (1982) point out, there are four distinct views of equality of results: (1) same results, that is, where there is an equalisation of outcomes; (2) same progress, where relative to different starting points, equal progress is made towards the same outcome; (3) minimal achievement, where a minimum level of outcome is set and all achieve that specified level; and (4) proportional results, where a minimal level is set and equal proportions of social groups achieve that level, or where attainment of a goal is defined, such as entry into higher education, and equal proportions achieve that goal. All four views deny to both individuals and groups the freedom of choice associated with the concept of opportunity. Furthermore, all including (2) (above), involve the assumption that either individuals or social groups collectively have an equal innate capacity to achieve educational outcomes. The Report of the Quality of Education Review Committee (QERC, 1985, p.161) takes an ambivalent view of this assumption and employs challengeable definitions of "intellectual ability" and "intellectual differences". It is not difficult to accept the view that individuals differ in their innate capacity to achieve educational outcomes, but it is difficult to accept the claim that different social groups do not differ in this innate capacity. Nevertheless, there is no denying the existence of social and cultural factors which increase the probability that some students will obtain greater benefits from educational opportunities than will others.

Another problem arising from the setting of a goal of equality of outcomes associated with compensatory programs is that if this goal is not achieved, the programs can be seen to have failed. The goal of providing more equitable opportunities would seem to permit the achievement of gains towards equalising outcomes, without having an unattainable target. The aim of programs for the educationally disadvantaged is to provide more equitable opportunities to compensate for differences associated with social and cultural factors and to increase the probability that those individuals and groups with handicaps will gain greater benefits from the educational opportunities provided. However, the goal of achieving progress towards more equal outcomes differs in significant ways from establishing either a short-term or long-term goal associated with the principle of equal results for

either individuals or social groups. To ignore existing educational research and to set up an unattainable target is likely to create a sense of disillusion and to destroy confidence in what can be achieved through education.

Equality and Equity: Changing Practices in Australian Education

During the early years of settlement, the more wealthy members of the six Australian colonies provided an education for their children with the expectation that they would enter the professions as doctors, lawyers and clergy. In the main, the institutions these children attended were administered by religious organisations and substantial fees were charged. It was recognised that talented children, on the grounds of merit, should be provided with opportunities to develop their abilities and thus private secondary schools offered scholarships to those students who would bring credit to them. Likewise, within the public sector of education, the colonial governments established some secondary schools to provide opportunities for those with ability to further their education beyond the primary school stage. However, such schools were not, in general, free, although scholarships were provided for the more able who could not afford the fees charged by these highly selective schools. For the remainder of the children in these colonies, elementary education was provided, partly by the colonial governments and partly by religious bodies, particularly the Catholic teaching orders, up to the age of 14 years. Initially, some financial assistance was available for the church schools, but during the years from 1872 to 1895, the colonial governments successively introduced Acts of Parliament that provided free, secular, public education and abolished all assistance to the church schools. While attendance at school was normally compulsory between the ages of 6 to 14 years, because of the costs of education to the State, and because parents still had to pay for the upkeep of their children, the age at which it was possible to leave school was lowered and many took advantage of this. From the outset, these systems of education, which were established by the colonial governments, sought for all to receive a basic education. Some of the advocates of the State schools envisaged compulsory public education as a means of preventing the growth and consolidation of social and economic strata in Australian society. Thus, education was viewed as a social agency which would promote the building of an equal society.

Universities were established in four of the colonies well before the end of the nineteenth century and in the remaining two colonies during the early years of the present century. With the exception of the University of Western Australia, which from the outset was generously endowed, all universities charged substantial fees, but offered a limited number of scholarships to assist the more talented, but not necessarily those in need, to train for the professions. It was, however, possible for university courses to be undertaken on a part-time basis and very significant numbers worked their way through university in this manner. Although principles of equality of provision operated, selection at all stages for

education at an advanced level and for financial assistance was on the basis of merit.

It is difficult to identify a time when these relatively conservative views of equality of educational opportunity were modified, but during World War II a more liberal approach to providing education started to emerge in Australia, as in other developed countries. From that time a remarkable expansion in the provision of postprimary and tertiary education occurred. The proportion of an age group continuing beyond the end of the period of compulsory schooling rose steadily, and with the rise of the minimum school-leaving age from 14 to 15 years, all students experienced some years of postprimary education. During the postwar years, there was still an emphasis on academic merit and, although school fees were gradually abolished in the State school system, a scholarship scheme was introduced to provide support on the basis of merit for those who remained at school to Years 11 and 12. In addition, there was a marked expansion of the tertiary education system. Teaching studentships made opportunities available for some who wished to continue their education beyond the postprimary school stage, and, while fees remained, an extensive scholarship scheme was also developed to provide both fees and living allowances for others who proceeded with education. Moreover, the marked distinctions between preparing for the professions and training for technical and commercial occupations were gradually removed from the lower and middle postprimary school curriculum, which was oriented towards providing a broad general education for all students during the years of compulsory schooling.

These changes were introduced as an outcome of societal pressures to make opportunities for education more freely available, irrespective of the students' social backgrounds and financial resources. Thus the changes that occurred were directed towards providing equality of access to education on the basis of merit through fostering those with talent and by preventing premature selection for special programs at postprimary school. As a consequence, selective entry on academic grounds to schools of different types and a high degree of selection for specific courses within schools were largely eliminated. Nonetheless, the practice of grouping students beyond the initial years of postprimary school on the basis of their achievement has continued in many schools.

While many of the marked distinctions between the provision of education for students of different social strata were gradually reduced or eliminated within the State school systems, inequalities continued to exist between government schools in different neighborhoods. Other inequalities continued between students from different social backgrounds in the extent to which they remained at school to complete a full postprimary course of twelve years of schooling. In addition, the nature and extent of these disparities were accentuated by the operation of the fee-paying Catholic and independent schools that have, at the postprimary level, tended to provide academic programs for students from higher status backgrounds. The retention rates of these schools at levels beyond the years of compulsory schooling were noticeably higher than those of the government schools.

The government school system in each State of Australia sought to provide equally for all students, irrespective of the location of the school they attended, in several ways: by using across all schools the same formulae for providing buildings and equipment and for allocating teachers to the schools; by issuing standard textbooks; and by ensuring that schools were in readily accessible locations. Although nongovernment schools have continued to exist alongside government schools, not all of these nongovernment schools have been able to attain the minimum acceptable standards which were set for schools in the government sector. Such schools were evidently unable to charge fees at a level that would provide satisfactory facilities and reduce class sizes to expected numbers. Thus, in spite of attempts during the years following World War II to provide greater equality of access and opportunity for education, significant disparities remained.

Consequently, when the Interim Committee for the Australian Schools Commission undertook to prepare a report for further reform in Australian education, it was not surprising that consideration should be given to the inequalities existing in the provision of education in this country (Karmel, 1973). In the Act of Parliament that was subsequently passed by the Commonwealth Government for the establishment of the Schools Commission, the Commission was specifically charged with:

> providing increased and equal opportunities for education in government and nongovernment schools;

and, in particular, in the exercise of its functions, it was to have regard for:

> the needs of disadvantaged schools and of students at disadvantaged schools, and of other students suffering disadvantages in relation to education for social, economic, ethnic, geographic, cultural, lingual or similar reasons (*Schools Commission Act*, 1973).

The establishment of the Schools Commission led to the introduction of radically new approaches to the provision of greater equality of educational opportunity within Australia.

A Needs Concept of Provision for Education

The new educational programs developed by the Schools Commission not only involved the intervention, for the first time in a significant way, by the Commonwealth Government in primary and postprimary education—which had previously been the province of the State Governments—but it also involved the introduction of a new approach to providing resources for education based on the concept of need. There was an acknowledgement in the report of the Interim Committee for the Australian Schools Commission that equality of educational opportunity could not be achieved merely by removing certain material barriers or by using merit, assessed in terms of academic ability, to

select those who should receive additional resources. The new approach aimed to provide assistance to schools and to students who were in need and who were disadvantaged in their education for social, cultural, economic, ethnic and other reasons.

However, the Schools Commission was also required to have concern for:

> the need to encourage diversity and innovation in schools and in the curricula and teaching methods of schools;

and for:

> the desirability of providing special educational opportunities for students who have demonstrated their ability in a particular field of studies, including scientific, literary, artistic or musical studies. (*Schools Commission Act*, 1973.)

It was, as a consequence, clear from the outset that the programs developed by the Schools Commission for education in Australia would not mean identical or equal educational opportunities. What was being proposed was the provision of *optimal* educational opportunities for all students in terms of need.

The nature and extent of the needs of students and schools are not easy to specify, and it is clear that not all identified needs could be satisfied by a program of limited duration and with limited resources. Consequently, after the needs of schools and of students within those schools have been determined, priorities must be established for the allocation of resources that are not only fair to all parties, but are seen to be fair and just. This requires obtaining objective information that can be made public to justify providing resources on the basis of need. The needs of schools and of students can be assessed in terms of the inputs to the educational process, namely the financial resources available to each school for the education of its students, or in terms of the outcomes of the educational process, as indicated by the performance of individual students, groups of students and schools on relevant achievement tests.

Within the government school systems of the Australian States, there have traditionally been consistent and continuing policies of equality of provision for all schools, and it might have been expected that the schools within each of these systems were of a largely uniform quality. However, after a long period of severe financial restrictions in the field of education, and with parents of students able to contribute significantly to upgrading the resources of the schools, there were marked disparities between schools in the quality and range of their educational facilities. This was true even within the government school systems and the disparities were even more marked across Australia when the Catholic and independent schools were taken into consideration. Consequently, it was not difficult to assess that some schools had material needs and to provide additional resources for those schools to upgrade their facilities.

Initially, some of the funds provided by the Schools Commission sought to do just this. In addition, funding sought to rectify the group or individual disadvantages that derived from social, cultural, economic and ethnic conditions. To assess these needs, it would have been appropriate to examine educational outcomes. There was, however, a clear reluctance to specify, except in very general terms, appropriate outcomes of education. In general, the systems contended, largely on the basis of overseas research, that certain social, cultural, economic and ethnic groups might be expected to have a lower level of achievement than other related groups and could be considered to be disadvantaged. There is little doubt that the programs which were developed had a beneficial effect on education across the country, within particular schools, and on the lives of individual students. This concept of need would appear to have been an appropriate one to employ, but the identification of need and the assessment of the degree or extent of need presented considerable difficulties. Significantly, by attempting to employ this concept of need, policies and programs were developed that departed from providing an equal level of resources and that sought to compensate some schools for the disadvantages they experienced.

During the decade from 1973, the views of the Schools Commission concerning educational disadvantage changed in significant ways. Johnston (1983) has undertaken an ideological analysis of the reports of the Schools Commission from 1973 to 1981. In these regular triennial reports, the Commission provided a series of general philosophical statements about schooling in Australia. The first report of the Interim Committee for the Australian Schools Commission (Karmel, 1973) was undertaken within a social democratic ideology seeking consensus between the disparate groups with an interest in education in Australia. The goal of equality of educational opportunity was strongly embedded in this report which provided a framework for subsequent policies and for the ensuing programs. However, the stratified structure of society was still largely accepted. Education provided the means by which the disparities between strata could be reduced and through which individuals could obtain optimum mobility to achieve a desired status. Education was the important agency for the greater equalisation of life chances of youth growing up in Australian society.

Johnston (1983) traces through successive reports a gradual shift in ideology from, initially, a view of equality in terms of a positivist framework to one concerned with "power over circumstances" so that students should:

> become competent people able to shape the character of their own lives and participate in shaping society (Australia, Schools Commission, 1975, p.7).

This view was extended in the *Report: Rolling Triennium 1977–79*, where it was stated:

> All young people should leave school with confidence that they are able to make sense of the world as they experience it, to act

upon it and participate in directing it (Australia, Schools Commission, 1976, p.8).

Subsequently, in the *Report for the Triennium, 1982–84*, this view is further developed:

> Schooling must equip individuals with power over their circumstances and provide them with ways and means of participating successfully in society ...
>
> Students must recognise the need to act with others in matters of common concern. The problems that confront the world are not subject to personal resolution or blame (Australia, Schools Commission, 1981, p.16).

Johnston notes the gradual shift in emphasis from individual fulfilment through the development of talents and abilities and effective use of the opportunities provided, to a view that the individual must participate with others to change the circumstances that constrain the hopes and aspirations of identifiable social groups. Experience in this process of change is available to the students and staff in the participatory procedures which should be introduced for the administration of schools. The shift in ideology has been towards a more radical discourse that is oriented towards wider social change. Neither theoretical perspective, derived from the opposing ideologies which dominate modern sociology, has the capacity to command strong popular support. However, the shift that has been observed and recorded may have long-term significance for Australian education.

The Introduction of the Concept of Equity

While the funding by the Commonwealth Government for the Schools Commission's programs for disadvantaged schools was maintained, in 1983 new initiatives were developed for the establishment of a "Participation and Equity Program". The development of this new program was largely in response to the substantial and significant problems facing youth during their final years of postprimary schooling and in their transition from school to work. These problems had been identified and exposed by Karmel (1979, 1981) who had argued that considerable numbers of students were leaving full-time education prematurely. In addition, the Schools Commission had undertaken a study which examined the issue of equity in the nature of the postprimary education provided by Australian schools, and had reported:

> Those who leave school at the completion of their compulsory schooling have in common with their age group immaturity and minimal personal resources to cope with the myriad challenges of the world. They do not, however, represent a cross-section of that age group. Too high a proportion comes from particular socioeconomic groups with identifiable personal characteristics. Failure to gain from schools is not a random occurrence. The distribution of educational opportunities by the social origins and

> personal traits of students is a persistent feature of the Australian system. It poses the challenge to distribute the benefits of schooling more evenly across the whole age group (Schools Commission, 1980, p.4).

The program, which was delineated by the Commonwealth Schools Commission in its statement, "Participation and Equity in Australian Schools. The Goal of Full Secondary Education" (Commonwealth Schools Commission, 1984), sought to fulfil the two objectives of reducing significantly the numbers of students who were prematurely departing from full-time education, and of fostering more equal educational outcomes.

The guidelines prepared for the program proposed making funds available to both the government and nongovernment schools in order to stimulate changes in postprimary education. These changes would, among other tasks, cater more adequately for the needs of the full range of students, accommodate more appropriately the social, economic and cultural diversity of students, lead to reforming and diversifying the curriculum, and improve the relationship between schools and the community. It is clear that the new program sought a greater level of participation by youth in education and a more equitable provision of opportunities for all youth in the age group. Whether the momentum of this program will be maintained with significantly reduced funding is uncertain.

The Development of a Range of Programs

The change in emphasis in providing for education in Australia follows and is derived from, at least in part, developments that took place in other parts of the world. Husén (1975) has identified three broad areas where strategies have been developed for bringing about more equitable opportunities in education. First, in the United States, and to a lesser extent elsewhere, programs of compensatory education have been introduced at the preschool level for children from deprived home backgrounds.

A second strategy has involved programs in schools. In Britain, following the recommendations of the Plowden Report, in which it was argued that children who were from disadvantaged backgrounds tended to congregate in schools in certain areas, programs were developed at the primary school level to provide more adequately for the needs of these children. However, the Plowden Report noted that:

> What these deprived areas need most are perfectly normal good primary schools alive with experiences from which children of all kinds can benefit . . . But, of course, there are special and additional demands on teachers who work in deprived areas with deprived children (United Kingdom, 1967, p.57).

Similarly in the United States, compensatory education programs were introduced in an effort to equalise educational opportunity. From the

early 1960s, a variety of federal and State legislation was enacted to assist educationally deprived children. The most significant legislation was associated with Title 1 of the *Elementary and Secondary Education Act 1965*, which had three clear purposes. First, it sought to allocate additional financial assistance to school districts which provided for large numbers of students from low income families, as well as to those schools with the greatest numbers of such students. Secondly, special services were to be provided for low-achieving students in schools with low levels of revenue, and thirdly, it was intended by Congress that the Title 1 programs would contribute to the cognitive, social and emotional development of those students who participated in the programs.

However, the implementation of this legislation met with both success and failure. In addition, it generated controversy on the nature of the special needs of educationally deprived children, on the causes and origins of deprivation and disadvantage, and on the means for achieving equality of educational opportunity. A review of the evaluation studies that have been carried out on these programs will be presented in the next chapter.

A third strategy of provision, which has been deliberately fostered in countries such as Sweden, has been developed at the postsecondary school level to encourage re-entry into formal education for those who left school early. In addition, programs at this level provided for those who required retraining and who had become redundant because of changing patterns of employment, for those who required new skills because of the introduction of new technology, and also for a wide range of further education programs to assist those who were seeking new leisure interests. These "recurrent education" programs increased greatly the flexibility of the educational system and extended the opportunities available through further education for those who may have been disadvantaged earlier in life. In Britain, the Open University has provided similar opportunities for a limited group, while in the United States, the widespread system of Community Colleges makes provision both for those who leave school without the necessary qualifications for entry to a college or university and for those who seek a second chance to proceed with learning at a postsecondary school level.

There is, however, a fourth area that has emerged not only in Australia, as has been indicated above with the recent introduction of the Participation and Equity Program, but also in many other developed countries, where the transition of youth from school to other forms of education or to regular work has posed critical problems. Whether the introduction of appropriate programs to provide for youth at this stage of transition should reside within the field of education, or should be transferred to another administrative area more closely related to labor and industrial relations, is unclear. Nevertheless, many aspects of the problems encountered in the development of appropriate programs are primarily educational ones.

What would appear to be required of such programs is the guaranteed provision of support services for training—sometimes involving the

basic skills of reading, writing and calculation, but more generally across a broad range of problem-solving and practical skills—that is integrated with experience in the work force. It would appear inadequate for these programs to operate only over short periods with temporary staff, and it would seem necessary for longer term and more imaginative services to be developed.

At least in the Australian context, programs that seek to provide more equitable opportunities for education could be developed at any one of the four educational stages, with each stage involving a different strategy and a different educational emphasis:

1. Early Childhood or Preschool Programs,
2. Compensatory or Disadvantaged Schools Programs,
3. Youth Guarantee or Transition Programs, and
4. Recurrent Education Programs.

It might be argued that only the second of these clusters of programs falls within the field of schooling and should be administered by agencies concerned with school programs. However, it is important to recognise that each of the remaining three types of program has a strong educational component. Moreover, the primary function of such programs is to provide more equitable opportunities for education—sometimes before and sometimes after the traditional public school has completed its work. Further, it can be suggested that in each of the four program areas the emphasis is greater on the needs of individuals—sometimes within institutions and sometimes outside the institutional setting—than on the merit of the individuals who are to be provided with access to opportunities. In the review of the provision of equitable opportunities for education that is presented in this monograph, consideration is not limited solely to compensatory or disadvantaged schools programs, but is extended to give a broad coverage of all four areas. However, partly because of the stronger current interest in Australia in the programs for disadvantaged schools, and partly because throughout the world a more substantial body of knowledge has been assembled with respect to this area from both research and evaluation studies, greater attention will be given to the programs that might be developed within this area.

Issues for Consideration

In Australian society, the children of many large subgroups of the population may be considered deprived or disadvantaged at least to some extent in their education: children of newly arrived and first generation migrants; children of Aboriginal origin; and children living in remote rural areas, in inner-city slum districts, and in the suburban fringes of the large cities that are poorly serviced with community facilities. In addition, some children because of their sex, or their possession of a physical, mental or emotional disability, may also be considered to be significantly disadvantaged in their education. While the provision of equitable opportunities for the education of these children is an important object of government, this review is primarily concerned with the education of children who are disadvantaged because of the social and financial circumstances associated with the

homes in which they live and the schools which they attend. These children, who may be considered to have been born into or are currently living in poverty, and for whom there is a relatively low probability of their being able to break out of that poverty, warrant special treatment at all stages in their education, particularly during their years of schooling. Many of the children who are members of the subgroups listed above also experience social, cultural and economic disadvantage, and as such are of concern in this review. Moreover, it is important to recognise that children who have been born into poverty or who are living in conditions of poverty are more likely to possess physical, mental and emotional disabilities, which are also of relevance in this discussion. However, for all of these subgroups which have been excluded in part from consideration, there are other programs which are specifically directed towards meeting their needs. This monograph has, then, the restricted purpose of giving consideration to those in Australian society who are regarded as being educationally disadvantaged on social and economic grounds and for whom more equitable educational opportunities are required.

In this review, consideration is given first to research and evaluation studies that have been conducted in the United States and the United Kingdom in order to determine whether generalisations might be identified that would apply to providing programs for the educationally disadvantaged, as we have defined this group, in Australia. The second task is to review in some detail Australian research into the nature of educational disadvantage and the nature of the programs that might be developed to remedy such disadvantage. A third task is to outline the programs that have been introduced in Australia during the past decade by the Schools Commission, and to describe briefly their nature and intended purposes. There is, however, a paucity of published evaluation studies which have been conducted within Australia into the effectiveness of these programs.

Any survey in this area, where during the past decade much has been attempted and where a great deal more remains to be done, would be significantly deficient if it did not seek to identify critical issues for Australian educational policy and practice and make recommendations for the development of programs to combat educational disadvantage and the lack of equitable opportunities in the provision of education in this country. The major problem involved in making such recommendations is that of identifying priorities and specifying programs that would be feasible with the necessarily limited resources available. Appropriate programs could be conducted at several educational levels and at stages in the lives of individuals well outside the domains in which the school authorities normally operate. The contribution of such programs must be considered, because failure to provide opportunities at these stages may have very substantial consequences at other levels. Moreover, it is important to recognise that providing educational programs is not a substitute for economic and social reform, nor is it the means by which reform is obtained. Major educational reforms are a natural outgrowth of social reforms and must follow them. There are real issues in Australian society which are concerned with poverty and both social and economic inequalities

and which require fiscal policies and housing and employment programs. The contribution of education is to provide opportunities to ensure that all individuals have the skills and competencies to live constructive adult lives, under the best conditions and circumstances that Australian society can provide.

3. Research and Evaluation: The Findings from Overseas

The past twenty years have been associated with a remarkable outburst of activity, initially in the United States but subsequently in other developed countries, in educational research and the subordinate activity of evaluation of educational programs. From this outburst of activity, which Walberg (1979) has referred to as a "quiet revolution in educational research", has come a very substantial body of knowledge about the educational process that is only now being gradually assimilated and disseminated. This transformation of educational research took place at a time when there was also great concern for the education of the underprivileged in Western societies and when a wide range of costly programs were being introduced to combat disadvantage. Consequently it was not surprising that research should be carried out into the nature of educational disadvantage, and into the identification of malleable or alterable variables to raise the quality of education. In this research there was particular concern for the education of those in greatest need—namely those living in deprived circumstances and attending schools in deprived settings. Furthermore, in many cases the high costs of many of the programs for the educationally disadvantaged prompted the funding authorities to require that very substantial evaluative studies were undertaken. These evaluation studies frequently produced results that had a generality well beyond the settings in which the compensatory education programs were set. Consequently these findings warrant examination and consideration in any attempt to obtain an overall picture of the nature of educational disadvantage and the types of programs that might be set up to overcome successfully, at least to some extent, the educational deprivation experienced in many schools and in the lives of many individuals.

While the majority of studies to be reported on in detail in this chapter was conducted in the United States, it is possible to leaven the discussion by reference to studies undertaken elsewhere in order to confirm or disconfirm the American findings, and thus to establish or otherwise the generality of the work carried out in the United States. As noted earlier, programs to combat disadvantage can be conducted at four specific levels of education, and in this chapter these four levels will provide a framework for the presentation of findings.

Early Childhood and Preschool Programs

The major program to support preschool activities in the United States was the Head Start Program which began in 1964 under the *Economic Opportunity Act*. This program, which was established in 1965, was intended to provide comprehensive health, education, and welfare services for children of poor families to enable them to reach their full potential and to prepare them for formal schooling. The original plan was to launch an experimental eight-week summer program for approximately 100 000 children, but the response was such that even before the program started a five-fold increase in size occurred and then an expansion to a year-round program took place. The program sought to increase the social competence of children from low-income

families by improving each child's health and physical skills, encouraging each child's spontaneity, self-confidence and self-discipline, enhancing the child's cognitive and communication skills, establishing expectations for the child's success, and increasing the capacity of the child and family to relate to each other. The structure of the program provided for the direct participation of the parents in the planning and implementation of activities. Approximately 20 per cent of the eligible child population of the United States were served by the Head Start Program. In general, the children were 4 years of age, but approximately 20 per cent were aged 5 years and 20 per cent aged 3 years.

The evaluation studies that were undertaken appear to have established that children who experienced these programs were better prepared to start school and were more likely to be able to keep pace with a normal class at school and less likely to require remedial assistance (OECD, 1980). However, relatively few Head Start evaluation studies have found large and lasting gains in the measured cognitive achievement of the children who experienced the programs. In spite of small initial gains, the majority of studies have not reported long-term benefits in school achievement. Positive gains tended to be maintained during the first year at school, but to disappear over a two- to three-year period. A wide range of variations to the basic Head Start approach were tested in the field and the evaluation studies have shown that some approaches were slightly more advantageous than others. For example, the longer programs were more effective than the short-term summer programs. Moreover, the more broadly based programs which involved a home–visit component and parent intervention had both immediate and longer term effects on the personal and social development of those who took part. Many of these results are typical of findings from the evaluation of early childhood programs throughout the world in so far as they indicate general positive lasting effects, particularly on the lives of low–income children (Katz and Mohanty, 1985).

Building on the acceptance and support of the Head Start Program, a more comprehensive program for children, the Follow Through Program, was developed for students in the early grades of schooling. Projects supported by this program were encouraged to adopt a special model of education that was based on one of the wide range of practical and theoretical alternatives which had been advanced by researchers at that time. A number of models were drawn from learning theory, some were derived from the Piagetian theory of cognitive development, and others were set in the more established tradition of child development that was widely accepted in the field of early childhood education. In addition, a few models sought to influence educational outcomes by working through and with the parents, rather than through the traditional classroom setting. The extensive evaluation studies that were undertaken have proved highly controversial, but, in general, they have shown that teaching methods based on different theoretical perspectives differed only slightly in their effects. It was clear, however, from these studies that only small gains, if any, could be expected from programs introduced during the early years of schooling (Weikart, 1985).

There has been a long-standing conviction among those sponsoring both the Head Start and the Follow Through Programs that parental and community involvement was essential for the success of the programs. Substantial changes in parental behavior, which were consistent with program goals, were noted in the experimental situation, but very little relevant change was noted in nonexperimental groups. The programs involved increasing parental knowledge and self-confidence in their approach to the child's development, and fostering increased contact and cooperation between the home and the school.

Relatively few studies have sought to follow closely both experimental and control groups of students over an extended period to examine the long-term effects, not only of the initial preschool program, but also the increased involvement of the parents in the education of the child. The Ypsilanti Perry Preschool Project, which has been conducted for the past twenty-two years by the High/Scope Educational Research Foundation at Ypsilanti, Michigan, is a notable exception. This study has followed 123 disadvantaged children from preschool to the age of 19 years, comparing the subsequent performance and experience of children who had a high-quality preschool program with children who had no preschool program. It was found that young people from disadvantaged homes who had attended a quality preschool program on average significantly out-performed youngsters who had not. For such long-term indicators as graduation from high school, enrolment in postsecondary education, not classified as mentally retarded or requiring special education classes, not being detained or arrested, avoiding pregnancy, obtaining employment, and not being in receipt of welfare on leaving school, the experimental group who had experienced a high-quality preschool program were greatly superior to the control groups who had not attended preschool (Schweinhart and Weikart, 1980; Weikart, 1984). Moreover, a cost-benefit analysis of the program and its assessed results indicated that investment in the preschool program must be considered to be a good investment for society. Not only were there increased earnings, both actual and predicted for the group who had experienced the preschool program, but there were reduced costs of education and decreased costs for crime and welfare services. It was clear that the estimated economic benefits by the end of high school were more than sufficient to justify public investment in the provision of one year of preschool education for children from disadvantaged home backgrounds (Weikart, 1984).

The Ypsilanti Perry Preschool Project worked with children who were randomly assigned to an experimental group that attended preschool or to a control group that did not. The children in the experimental group attended a preschool program of two-and-a-half-hours duration for five days a week for one school year at 4 years of age, or for two school years at ages 3 and 4 years. The program emphasised active learning, problem solving, and a high degree of interaction between adults and children and among the children themselves. In addition, the teachers visited each mother and child in the home for ninety minutes each week, to arouse the mother's interest in, and attention to, her child's curiosity for learning.

Bloom (1964) and Bloom, Davis and Hess (1965) have provided evidence to support the contention that, to ensure optimal physical, emotional, social and general cognitive development, the major intervention in the life of the child must take place in the earliest years of the child's life. The evidence from the Follow Through evaluation studies, reported above, would seem to indicate that substantial benefits cannot be expected from compensatory education programs which operate only during the early years of schooling. These years are too late, unless initial work has already been undertaken. Furthermore, the findings from the Ypsilanti Perry Preschool Project suggest that the active involvement of parents in the programs is a necessary condition for achieving success. Only by encouraging the parents to work with the preschool and school can programs of stimulation be sustained for an adequate period to ensure that substantial gains are achieved. The actual time at preschool is clearly too short for marked gains to be made, and parents living in deprived situations need the support of the preschools and schools, as well as individual tuition from teachers to learn how to best foster the child's cognitive development. The longitudinal component of the Ypsilanti Perry Preschool Project would seem to indicate that once parental interest and support are established they can have a very significant long-term effect on all aspects of social and emotional as well as cognitive development. While more research is needed to clarify the processes by which preschool intervention programs influence the lives of disadvantaged children, it is evident that early childhood programs can have highly beneficial, lasting effects on the lives of children.

Programs during the Years of Compulsory Schooling

PROGRAMS IN THE UNITED STATES

The policies for equal educational opportunity in the elementary and postprimary schools of the United States led to the setting up of many programs through processes that involved various branches of the Federal, State and local governments, as well as agencies in the public and private sectors outside government including the charitable foundations. Policies and programs for disadvantaged students during the years of compulsory schooling have been directed towards two major objectives. First, activities were focused on providing equal access to educational opportunities either through the elimination of overt discrimination or through assisting individuals to take advantage of what the schools could provide. Secondly, programs were directed towards improving the quality of the education provided in order to meet the special needs of disadvantaged individuals and identified minority groups. The major elementary and postprimary education programs, in addition to the Follow Through Program already discussed, were the *Title 1, Elementary and Secondary Education Act*, 1965 that catered for students suffering from economic deprivation, and the *Emergency School Aid Act*, 1972 that sought the elimination of segregation and discrimination for minority group students. There were, in addition, other new programs or components of established programs that catered for the children of migratory workers, American

Indian students and children with physical or mental disabilities, and others in bilingual education that provided for groups of children of non-English-speaking backgrounds.

The Title 1 programs grew from a five million dollar activity beginning in 1965, to a three billion dollar activity in 1981, when the programs operated in approximately 17 000 school districts spread across the fifty States. In 1971, a provision was added to the Act requiring that an evaluation should be undertaken on each project funded. To assist in the conduct of these evaluations, ten Title 1 technical assistance centres were established across the country. These centres gave advice to schools and districts on the selection of tests to be used to identify educational need and tests to assist in evaluating the effectiveness of the funded projects. Three models of evaluation were developed, a norm-referenced model, a comparison group model and a regression model. These models were designed to provide statistical procedures that would yield a measure of the level of achievement of students who had experienced Title 1 Programs compared to what would have occurred in the absence of Title 1. The emphasis on evaluation using these models has greatly increased the employment of testing procedures. The frequent incidence of small or no gains from the many small evaluation studies carried out has led to a questioning of the effectiveness of the whole Title 1 program (Borich, 1985).

As a consequence, two major evaluation studies have been undertaken. The first was carried out by the National Institute of Education into the effectiveness of compensatory education programs and how such programs might be improved. The study commenced in 1974, and reports from this study were issued in 1977 and 1978. They focused on whether the Title 1 programs had met their three objectives, namely, the allocation of funds, the delivery of services and the development of children. The second evaluation study was the Sustaining Effects Study which was undertaken by the Systems Development Corporation. It was started in 1975 and the final report was completed in 1983. The main findings of these two major studies are of interest. However, before discussing the results obtained from these studies, it is necessary to consider an earlier investigation which changed common understanding of the concept of "equality of educational opportunity", and the nature of programs to reduce inequality.

The Equality of Educational Opportunity Report. During the early years of the drive for the establishment of compensatory education programs, J.S. Coleman was commissioned to undertake a study of equality of educational opportunity in the United States (Coleman, et al., 1966). This large cross-sectional survey was designed to identify the extent and origins of inequality in educational opportunity among the six main racial and ethnic groups in the United States: Blacks, Puerto Ricans, American Indians, Mexican Americans, Oriental Americans and Whites. The report examined the inequality in educational opportunity through comparing the provision of resources to the schools attended by each of the groups under survey, since these were the characteristics of schools that principals, superintendents and school boards had traditionally employed in assessing or comparing the

quality of education that their schools provided. The results showed differences between schools attended by Blacks and Whites in the same geographic region. In general, the results showed that Whites were attending schools with greater resources, although this was not uniformly true. The most striking feature was the relatively small size of the differences. For most resources, differences between the Northern and Southern States, and to a lesser extent metropolitan/nonmetropolitian differences were noticeably greater than differences within localities. In addition, there were very substantial national differences between schools attended by minority student groups and those attended by Whites.

Perhaps the most striking difference was the racial compositions of the student bodies of schools attended by the average Black student and the average White student. Segregation was greatest in the Southern States and greatest in the elementary school years. In addition to differences in racial composition of the student groups, there were substantial differences in the characteristics of the teachers of Black and White students. These differences involved the attitudes and scores recorded by the teachers on a vocabulary test rather than differences in length of training, salary and other characteristics. The marked differences between schools arose from the racial segregation of the student bodies and the racial matching of teachers and students. Clearly differences of such magnitude might be expected to have substantial effects.

As discussed in Chapter 2, a major objective of the Coleman study was to use achievement as a criterion against which various differences of input could be evaluated. Regression analysis was used to assess the relative importance of different input variables for explaining differences in achievement. Subsequently, it was hoped that by applying weights to these different factors in terms of relevance for achievement, a measure of the overall inequalities of opportunity for education in different settings could be constructed. The final stage of providing such a measure was never achieved. Nevertheless, it was possible to provide answers to specific policy questions. Although different measures of achievements were used, namely, verbal skills, mathematical skills and, at higher grade levels, tests of practical knowledge, science, social sciences and the humanities, the results were similar for all measures. The Whites and Oriental Americans performed at comparable achievement levels at all grades tested (Grades 1, 3, 8, 9 and 12) and the other minority groups, particularly the Blacks and the Puerto Ricans, at substantially lower levels. The disparities in achievement were greatest in the Southern States, especially so in the nonmetropolitan South. Moreover, these differences increased from Grades 1 to 12. Thus, where the Black students performed at a level of one student standard deviation below the White students at Grade 1, the difference had increased to one-and-a-half student standard deviations by Grade 12.

In assessing the importance of school factors, the powerful contribution of the characteristics of the student's own family background greatly exceeded the weaker contribution of school factors. The important school factors formed three clusters: teacher characteristics,

characteristics of the curriculum and the school, and characteristics of the student environment. The latter was obtained by aggregating student characteristics to the school and grade level. The aggregated student characteristics were clearly the most important factors, the teacher characteristics were the next important, and finally the other school characteristics. The total variance in the achievement test scores accounted for by these three sets of school factors was not large.

The results indicated that the integration of schools across socioeconomic lines, and thus across racial lines, would increase the achievement of the lowest performing group—the Blacks. The inference to be drawn was that the characteristics of the student group had a more substantial influence than teacher characteristics and the nonpersonnel resources of the school on the performance of students at school. The results of the relationship of the school and teacher characteristics to achievement proved to be highly controversial and all aspects of the study, including the measures and the techniques of analysis employed, were strongly criticised. However, in spite of the controversy, policies were introduced that sought to reduce the disparities between schools by reducing the differences between schools in the social composition of the students. Exactly how differences in the social composition of school groups influenced the achievement outcomes of students was not made clear (Coleman, 1969, pp.253–59). The assumption was made, however, that interaction between the students within a school had a significant influence on outcomes associated with educational achievement.

The National Institute of Education (NIE) Studies. The NIE studies consisted of thirty-five research projects, which were conducted over the three years from 1974–77. Seven reports and an Executive Summary were prepared (National Institute of Education, 1978). This study indicated that the Title 1 programs had succeeded in providing additional educational aid to those districts and schools in greatest need and to those students whom the schools usually served least well. Furthermore, there was evidence that the program had encouraged the State and local school districts to commit their own resources to serve previously neglected poor and disadvantaged students. However, there was considerable pressure on administrative agencies to increase the number of schools being served, and the development of a high degree of flexibility in identifying schools in need resulted in the reducing concentration of funds. Alternative approaches to the allocation of moneys to districts and schools were considered, including the use of data from achievement tests. It was clear that there were significant and substantial problems in the identification of both those districts and schools which were in greatest need and in developing procedures for the equitable distribution of funds.

The types of services provided and the changes in teaching strategies used by schools and teachers who benefited from increased financial support were examined by the evaluation studies. The classes providing compensatory instruction in reading contained, on average, nine students, and in mathematics and language arts on average, twelve students, compared with regular classes of twenty-seven

students. On average, students in compensatory education programs spent five-and-a-half hours per week receiving special instruction, in the main from teachers who had special training beyond a bachelor's degree. In addition, many school districts attempted to individualise instruction, although few offered instruction that could be considered to be fully individualised. This was achieved through the widespread use of teacher aides. There was little doubt that the programs were designed in ways that would help students to achieve better at school particularly in the basic skills.

The Equality of Educational Opportunity Study has emphasised that it was not the improved provision of education that was sought, but rather a greater equality in outcomes. It was found that the effects of the compensatory education programs on student achievement were generally significant, being greater in the lower grades, and rather greater in this study than had been commonly recorded in previous smaller evaluation studies. Nevertheless, it was clear that Title 1 programs could not be guaranteed as successful and that problems existed in maintaining the quality and stability of the instructional services provided. The results did indicate, however, that school districts could create the conditions that were necessary to make compensatory education services effective in reducing differences in outcomes between advantaged and disadvantaged student groups.

The Sustaining Effects Study. The magnitude and costs of this major evaluation study were immense, and the detailed information and the care and thoroughness with which the data were analysed were impressive. It is unfortunately a reflection on the current climate for educational research in the United States and for compensatory education programs that, while a final report has been available for more than two years, little publicity has been given to the study, and the final reports of the study have not been published. The key findings reported by Carter (1984) from this extensive study are given below.

1. Compensatory education is more effective in the lower grades than in the higher grades.
2. Students who were promoted out of compensatory education programs continued to perform at the new levels and did not seem to revert to lower achievement levels.
3. Students receiving compensatory education showed significant gains relative to students assessed by their teachers as being in need but who did not receive compensatory education. However, they did not show gains relative to regular students who were not assessed as being in need and who did not receive compensatory education.
4. Compensatory education programs were effective, as assessed by achievement, for students who were only moderately disadvantaged, but did not improve the relative achievement of the most disadvantaged sector of the school population.
5. By the time students who had received compensatory education reached junior high school there was no evidence of sustained or delayed effects of the programs.

6. Opportunity to learn, considered as the amount of time available for learning, the amount of time spent learning, and the overlap between curriculum content and test content, was moderately related to achievement gains in reading and mathematics.
7. Instructional practices operated through opportunity to learn to effect achievement gains. A range of different instructional practices, including allocation of teachers' time to instruction, quality of classroom management practices, level of direct supervision of students and students' learning behaviors were found to be positively related to opportunity to learn, and thus indirectly to achievement gains.
8. A detailed study of classroom practices indicated that their influence on gains in achievement were highly complex and involved indirect relationships.
9. Attempts to identify the characteristics of good schools that effectively administered compensatory education programs proved unsatisfactory and unrewarding.
10. Causal analyses indicated that, in the beginning grades, school learning experiences were almost as effective as initial achievement and as home background, but as students progressed through elementary school, learning experiences had little influence on achievement outcomes. These findings would appear to emphasise the importance of providing positive learning experiences in the early grades.

The disappointing result from this major study was that although compensatory education could overall be considered to be beneficial, the lower achieving students, for whom there was clearly the greatest need, did not seem to benefit. It was considered that a new program with significantly more intensive and innovative techniques would be required if substantial gains were to be made by the most disadvantaged students. Furthermore, the evidence collected from this study of the very substantial numbers and proportions of students who were not disadvantaged and in need of compensatory education, but who seemed to be receiving it, and of the large numbers and proportions of students who were in need and who were not receiving compensatory education, indicated that very considerable difficulties were encountered in attempting to direct even extremely generous resources to those students in need.

The Barriers to Excellence: Our Children at Risk Report. In response to the "A Nation at Risk" report that was prepared by the National Commission on Excellence in Education (1983), a report has recently been released, without a strong research base, but produced by a panel chaired by Harold Howe, a former United States Commissioner of Education. The report warns of the dangers of neglecting the special needs of deprived children, that could lead to the forming of a "permanent underclass in America" (Howe and Edelman, 1985). This report drew attention to the fact that a disproportionate amount of the funding for the schools in many States was going to schools in middle class and wealthy neighborhoods, and that substantially less money was being allocated to schools in poor and minority neighborhoods. Other practices that were strongly criticised were those of tracking, which placed White students in

advanced classes and minority students in slower classes, an excessive reliance on the use of standardised tests, the high rates of suspension from school of Black students, the lack of attention given to the needs of pregnant teenage students, and the lack of concern for the high dropout rates for Black and Hispanic students, who had commonly failed to master the basic skills.

EDUCATIONAL PRIORITY AREA PROGRAMS IN BRITAIN

The Plowden report on *Children and their Primary Schools*, prepared by the Central Advisory Council for Education in England (1967) under the chairmanship of Lady Plowden, commissioned research that sought to tease out the major influences on the educational opportunities of children and to assess and compare their relative importance. It found that the outlook and aspirations of the parents, the opportunities and handicaps of the neighborhoods in which the children lived, the skills of the teachers and the resources of the schools the children attended appeared to make contributions. The schools were seen to form part of a "process, both causing and suffering cumulative deprivation" for children growing up in neighborhoods that experienced long-term social and economic disadvantages.

As a consequence, the Report proposed a nationwide scheme for assisting neighborhoods and schools where children were most severely disadvantaged. The schools were expected to provide an environment that would compensate for the poor quality of the environments in which the children lived. These policies were derived from the view that there should be equality of educational opportunity for all, but that children in some areas would only have similar learning conditions and experiences as those living in more advantaged districts if they obtained additional assistance and received unequal treatment. Thus, each Local Education Authority in England where deprivation could be found was asked to apply "positive discrimination" within its own area. Socioeconomic characteristics were advanced which could be used as criteria for identifying schools in need.

The most important form of additional assistance suggested for such schools was to bring into the schools more experienced and successful teachers, who would also be supported by a generous number of teachers' aides. While it was recognised that there were special groups of children who were severely deprived, such as children from canal boat families and gypsies, the programs proposed for these "educational priority areas" were not directed towards the specific educational problems of such children. The primary purpose of the programs of redistribution of resources, by means of positive discrimination to selected schools in neighborhoods where children were most severly handicapped by circumstance, was to raise the quality of the schools by the provision of additional teachers and teachers' aides, the replacement or renovation of buildings, and the provision of extra books and equipment. In addition, the Council advocated that: (1) nursery school or preschool education should be expanded in the area; (2) the schools should establish links with colleges of education; (3) teachers' centres should be set up to provide

inservice training; and (4) social work programs should be developed in association with the schools.

Action research projects into the educational priority areas and their problems and policies were sponsored by the Department of Education and Science and the Social Science Research Council of the United Kingdom. In a report on these research projects, Halsey (1972, p.180) summarised the major conclusions of the study.

1. Despite difficulties of identification and definition, an educational priority area was an appropriate social and administrative unit for the application of positive discrimination to schools.
2. Preschools were an outstandingly effective and economical means of raising educational standards in priority areas.
3. The concept of a community school had important implications for community regeneration in educational priority areas.
4. The quality of teaching in educational priority area schools could be improved in recognisable ways.
5. The partnership between families and schools in educational priority areas could be improved in practical ways.
6. The setting up of an educational priority area must be seen only as a part, although an important part, of a comprehensive social movement towards community redevelopment in a modern urban industrial society.

The program of establishment of educational priority areas clearly had benefits going beyond the education of individual children. Although the focus of the program was on the improvement of schools, by the identification of a school within a neighborhood area and a community setting, the program was reported to have had an effect on the regeneration of the community in which the school was set. The evidence obtained from the action research studies supported the strengthening of this relationship between the school and the community, in order to optimise the long-term social and cultural benefits of the program.

More recently, Smith (1977) has re-examined the concept of educational priority areas in England. Smith considers that:

> The original EPA policy confused two separate elements—reaching individual children "at risk" by areas designating where they may be concentrated, and a true area policy intended for all children in an area defined as disadvantaged, whether they were individually at risk or not. This second approach to EPA would mean a series of related educational developments designed for the particular needs and conditions of specific areas, not a uniform blanket policy (Smith, 1977, p.280).

Smith contended that there was a major lesson to be learnt from the EPA experimental projects, namely that single developments were not effective on their own, they needed to be reinforced by complementary programs of community redevelopment. There would appear to be growing support in England for a comprehensive multifaceted strategy for countering educational disadvantage based on the community or deprived area.

THE ALTERNATIVE SCHOOL MOVEMENT

The alternative school movement evolved in the late 1960s in the United States when there was popular support for the ideals of egalitarianism and participatory decision making. The concept of an alternative school requires some elaboration. An alternative school has been defined as:

> any school that provides alternative learning experiences to those provided by conventional schools within its community and that is available by choice to every family within its community at no extra cost (Smith, 1974).

The alternative school movement has led to the establishment of a range of schools to meet a variety of needs that have been perceived within a community. The general characteristics of these schools are: (1) voluntarism, (2) small size, (3) egalitarianism, (4) humaneness, (5) participatory decision making, (6) organisational flexibility, (7) individualised learning, (8) more comprehensive goals, and (9) school community commitment. These schools are now relatively widespread in the United States and the movement has spread to other parts of the world. Although they do not, in general, attract large numbers of disadvantaged students, they do attract students who have attendance or discipline problems, who are potential or active dropouts, and who have difficulties mastering the basic skills. One significant role of these schools has been as a model of alternative approaches to education. In this way, they have had an impact on neighboring conventional schools, if they were seen to be successful. Sometimes such schools have been referred to as "community schools" rather than "alternative schools". However, this name relates only to one aspect of the activities of the schools, namely, school community commitment (Fantini, 1985).

THE FINDINGS FROM RESEARCH STUDIES IN SCHOOLS

Although the research studies reviewed below have not been primarily concerned with educational disadvantage, their findings have implications for the conduct of programs to combat disadvantage during the years of compulsory schooling. A substantial body of knowledge about effective strategies of teaching and learning and the administration of schools has gradually been assembled during the past twenty years. While individual studies do not appear to provide a coherent view of the findings from research, it is possible to develop a relatively consistent perspective from the body of evidence now available and to identify alterable variables affecting educational outcomes (Bloom, 1980).

Effective Instructional Strategies. The most effective method of instruction is individual tutoring in which an individual student learns the subject matter from an experienced and knowledgeable tutor. The tutor not only provides instruction but, as part of the teaching process, administers exercises to ensure that effective learning is taking place, and provides remedial help where deficiencies in learning or teaching are found to occur. There are several important features of this method

of instruction. First, the tutor ensures that the student possesses the necessary prior knowledge and skills before presenting a new concept or principle. Secondly, the student spends a very high proportion of the time available for learning actually engaged on the learning task. Thirdly, the student is informed without delay as to whether or not the material presented has been understood or the skill has been acquired, and receives praise where appropriate. Fourthly, a skilled tutor is able to structure the information provided, either through careful questioning or through ordered explanation, to the learning needs of the individual students. Bloom (1984) has estimated that if appropriate instruction is provided the average student can achieve the standard of performance of the student at the 98th percentile level under traditional methods of instruction. The obvious shortcomings of this instructional strategy would be the high level of cost, and the difficulty of finding a sufficient number of skilled teachers who could teach effectively under these conditions.

Bloom (1984), from a review of the research in the field of instruction undertaken by Walberg (1984), has identified key alterable variables that have a substantial effect on student learning. These variables—some associated with the teacher and others with the learner—together with the size of each effect and the percentile level at which the average student can be expected to achieve compared to students receiving instruction under normal classroom conditions, have been recorded in Table 2. This information is derived from the work of Walberg (1984) and Bloom (1984). The effect size is, in general terms, the proportion of a student standard deviation of achievement test scores that a group of students who have experienced the treatment conditions might be expected to perform above a similar group who have not experienced these conditions during the teaching and learning of the subject being tested.

Table 2: Effect Sizes and Percentile Equivalents for Key Alterable Variables

T = Teaching L = Learning	Alterable Variable	Effect Size	Percentile Equivalent
T	Tutorial instruction	2.00	98
T	Reinforcement	1.20	87
L	Feedback and correctives	1.00	84
T	Cues and explanations	1.00	84
T	Student classroom participation	1.00	84
L	Student time on task	1.00	84
L	Improved reading and study skills	1.00	84
T	Homework (graded)	0.80	79
T	Classroom morale	0.60	73
L	Initial prerequisite knowledge	0.60	73
T	Peer and cross-age tutoring	0.40	69
T	Homework (assigned)	0.30	62
T	Higher order questions	0.30	62
T	Teacher expectations	0.30	62
	Socioeconomic status	0.25	60

Source: Adapted from Bloom (1984) and Walberg (1984)

In Table 2, the estimated influence of the variable socioeconomic status, a variable whose effects underpin much of the debate on social and economic disadvantage in education, has been provided for the purpose of comparison with the key teaching and learning variables which are alterable and which can, under appropriate conditions, be changed. It is important to recognise that socioeconomic status is a variable that cannot be readily changed.

Bloom (1984) has argued that if strategies of teaching and learning were developed that employed such practices listed above as: reinforcement, feedback and correctives, cues and explanation, student classroom participation, effective time on task, homework (graded or assessed), initial prerequisite knowledge, peer and cross-age remedial tutoring, and teacher expectations, then a process of complete learning would be introduced that would be associated with a combined effect size of 1.0. Under these circumstances, the average student who experienced these strategies of complete learning could be expected to perform at the level of the 84th percentile for students in normal classroom instruction. A necessary prerequisite for the introduction of such strategies is that the curriculum and the teaching materials available for classroom use should be carefully constructed to permit systematic instruction to take place that would involve complete learning at successive stages. An earlier work by Bloom (1976), *Human Characteristics and School Learning*, provides an introduction to these ideas, which were extended in later writings (Bloom, 1980). Underpinning these principles of instruction is a very substantial body of research, that has only in recent years been brought together in a coherent form.

Effective Schools. It is generally recognised that some schools are more effective than others in influencing achievement and the other outcomes of education attained by their students. A range of factors such as school morale, teacher expectancy, and the setting and grading of homework, are alterable variables among those recorded in Table 2 that involve school policies as well as teacher and classroom practices and that have a substantial effect on achievement outcomes. Other school organisational factors, such as the development and use of a coherent program of instruction in the school, would appear to be a necessary prerequisite for effective school learning. Support for this claim comes from the First IEA Science Study in Australia in 1970. From this study it was argued that, while each factor associated with the organisation of schools by itself might make only a small contribution to explaining variability in achievement outcomes, the significant factors, when taken together, were interconnected and contributed to the view that:

> the effective learning of science takes place in a consistent school environment where students receive competent, systematic instruction in carefully structured science courses (Rosier, 1974, p.187).

What is true for science, is also likely to apply to other areas of the school curriculum. Nevertheless, studies such as the Sustaining Effects Study (Carter, 1984) considered above, have recorded disappointment

in being unable to find instructional programs and patterns of school organisation that were particularly effective with disadvantaged students.

What does emerge from the Equality of Educational Opportunity Study (Coleman et al., 1966), referred to above, is that the social, cultural, and economic backgrounds of the student body are associated with a range of factors that have a substantial influence on the organisation and operation of a school and thus on the effectiveness of the school. The composition of the student body would appear to influence the characteristics and behaviors of both the teachers and the administrators, as well as the nature and effectiveness of the teaching and learning that takes place in the schools.

Madaus, Airasian and Kellaghan (1980), in a reassessment of the evidence on school effectiveness, observed that a substantial part of the differences between schools and between classes within schools in their levels of performance could be accounted for by differences in the achievement press of the school or classroom. Schools or classes that had a strong press for academic excellence, that valued discipline, provided a sound structure, emphasised homework and study, and where students were expected to do well, particularly at the postprimary school level, achieved at higher levels than did schools and classes that did not subscribe to these values. It is important to note that such values are inculcated, in part, by the policies of the school and its teaching staff, but also, in part, by the attitudes and values that the students bring with them to school.

In the United States, several recent studies have been carried out in an attempt to understand how schools work, in order to improve schooling. Important studies have been reported by Boyer (1983); Clark, Lotto and McCarthy (1979); Goodlad (1984); Lightfoot (1983) and Sizer (1984). The key factors identified in these studies collectively were: (1) a clearly identified stance concerned with the importance of learning is essential; (2) the behavior of the designated school or program leader is critical in influencing the successful operation of the school; (3) successful schools use staff development and inservice training to introduce changes in curriculum and teaching practices; (4) appropriate incentives are provided for both students and teachers; (5) successful schools are well organised in a way that is simple yet flexible; (6) successful schools are characterised by clearly stated curricular goals and objectives; (7) interpersonal relationships between students and teachers are important for the success of a postprimary school, (8) teachers are provided with adequate opportunity for autonomy in daily work; (9) successful schools are characterised by high levels of parental contact with the school and parental involvement in school activities; and (10) adequate finance is available to support planned innovation.

The Fifteen Thousand Hours Study. Rutter (1979) and his co-workers, in a longitudinal study of twelve London secondary schools, conducted from 1970 to 1974, found a clear pattern of variation among schools in student learning and behavior, even when social background was held constant. The character of a school was strongly

related to the dimensions of student performance on academic achievement tests, student conduct in school, attendance rates, and delinquent behavior outside school. Good schools had effective educational strategies, were committed to student learning, created a climate of high expectations and respect for students, and provided a pleasant physical environment. Effective teaching strategies were also identified in the study, including the use of praise, rewards, and appreciation, with immediacy of praise enhancing effectiveness. In addition, schools with an agreed standard of behavior and discipline tended to operate more effectively. Teachers in such schools were more likely to begin lessons on time, not to end classes early, to assign homework to students, and to spend minimal class time preparing equipment and distributing materials. These teachers also expected students to be able to work silently and independently.

It was also found that the climate of the school was enhanced by such practices as freedom to use buildings during breaks, access to the telephone and the availability of hot drinks. Students were better behaved where teachers said that they would see students about a problem at any time, and where students reported feeling comfortable discussing personal problems with teaching staff. From this study, the research workers argued that secondary schools, as relatively self-contained organisations, tended to develop their own culture, climate and ethos. The results of the study demonstrated the value of viewing schools as social organisations. However, while the study was longitudinal in nature, only twelve schools were involved and the statistical procedures employed were possibly inappropriate for the analysis of data from such a small number of schools. Consequently, although the findings of the study have considerable intuitive appeal, the generalisations drawn must be treated with caution.

During the past five years, considerable research effort in the United States has been directed towards identifying characteristics of successful schools. Some studies being carried out appear to be intervention studies, in which efforts are being made to raise the quality of the school through planned intervention. It must be acknowledged that the characteristics of good schools, like the characteristics of the ideal or successful teacher, could prove elusive in spite of widespread and sustained research efforts. Nevertheless, programs of school improvement, particularly if the needs of disadvantaged students are to be met, demand a sound knowledge of what contributes to a successful school.

The OECD Review of Educational Disadvantage in the United States

In 1978, the Organisation for Economic Co-operation and Development conducted a review into federal policies for education for the disadvantaged in the United States (OECD, 1981). The Review Panel, from its observations of programs for the disadvantaged in American schools, raised five issues which seemed to it to be of major concern. First, the practice of withdrawal of students from regular classes to be

sent to separate rooms to receive instruction from a remedial teacher seemed to be detrimental because such students missed regular class instruction, commonly did not receive instructions from a trained specialist teacher, and were thereby labelled as retarded or handicapped. In part, the development of the practice of "pull-out" was seen to be a consequence of the requirement of the Title 1 program regulations that only eligible students should receive the available services.

A second issue that was considered controversial was the emphasis that had developed on minimum competency testing, through which program the students were expected to achieve minimum standards of competency in the basic skills before graduation from high school. While it was recognised that the introduction of such a program was a reaction against a perceived decline in academic standards, there appeared to be a lack of awareness of the possible adverse consequences for individuals who were unable to obtain the credential. Such students would tend to be concentrated in the disadvantaged group, and the outcome of the emphasis on minimum competency standards would most probably exacerbate the divisiveness between social groups that compensatory programs were seeking to overcome.

A third problem was the undue emphasis on testing that had developed, with the associated belief that all educational achievements could and should be measured, and all learning that could not be assessed by a test should be ignored. The Review Panel considered that the excessive concern for testing in compensatory education diverted attention from the human factors which were most conducive to effective learning.

The fourth issue noted by the Panel was the problem of maintaining continuity in the programs of the junior high school. It was considered that during these middle-school years many of the critical educational problems associated with disadvantage developed as students, particularly the deprived, tended to become difficult, unruly, and clearly identified as falling behind scholastically. These problems became apparent in high truancy and dropout rates in many schools in Grades 7 to 9. Conventional wisdom has contended that the basic skills and attitudes towards education were developed during the lower grades of elementary schooling and that efforts made at later grade levels with students aged 12 to 16 years were largely wasted. While certain aspects of this view could not be denied, it was clear that appropriate and effective learning could take place at all stages of schooling, and the junior high school years were crucial ones in these respects.

A fifth problem area concerned the role of teachers. In general, work with students in compensatory education was commonly assigned to Title 1 remedial teachers, as distinct from regular classroom teachers. This division of labor meant that classroom teachers accepted little responsibility for trying to help disadvantaged students and that the remedial program was not integrated with the normal classroom learning provided by the school. It was widely acknowledged that the compensatory education programs had a stimulating effect on schools, arousing parental interest and intensifying teachers' commitment.

However, insufficient efforts had been made in preparing both remedial and normal classroom teachers for the demanding aspects of the work.

The Review Panel advocated using the funds available for compensatory education for the purposes of school improvement. It noted the marked disparities between States and between school districts within States and even between schools within districts in the level of funding available for educational services. While it recognised that the provision of education in the United States was the responsibility of the State and the school district, it also recognised that the major problems of education are encountered at the school level. The funding provided from Federal Government sources for compensatory education, it contended, should ideally be added to the basic provision from State and district sources to enable schools to cope with disadvantaged students in excess of the normal degree of variability that might be expected in the backgrounds and abilities of the students. Thus, schools with abnormal concentrations of disadvantaged students should receive additional resources to enable them to cope with the burdens imposed by abnormal student enrolment and without classifying the students who were in need of help into rigid categories. It was suggested that this could be better achieved by an overall approach to the improvement of a school, in which the teachers were trained to value the differences among students and to adjust their teaching methods to take account of such differences, and not merely to provide remedial services for those students needing special attention.

The desirability of parental involvement through councils within the school and at district and State levels was endorsed, on the grounds that the emphasis on the individual child that should be present in all educational processes should be reflected in an emphasis in the school and its constituent members on the process of making decisions. The nature of the school and the climate developed within the school were seen to contribute more to student achievement than the variations in class size, curriculum and teaching methods that might be employed with additional resources. The additional resources provided through a compensatory education program for a school with a greater than normal proportion of disadvantaged students might more profitably be used to improve the overall quality of education provided by the school, than by directing the resources to the education of particular students.

The Review Panel had some contact with one particular district that had been involved in the establishment of alternative schools, where the use of the term "magnet" schools was employed. The impetus for these schools came from the moves for desegregation, and they were intended to be attractive to parents and students of all ethnic groups. The first of these schools was established in the late 1960s and, within a decade, it was estimated that there were about 10 000 such schools in the United States. The development of these schools was seen to be of interest to the extent that disadvantaged students would no longer be segregated. They would, of their own volition, be placed alongside students from nondeprived or normal backgrounds in these new alternative schools.

During the 1980s, a major development in the United States had been the reform of the schools. The impact of the controversial report *A Nation at Risk* (National Commission on Excellence in Education, 1983) has resulted in the setting up of a substantial number of National and State committees of inquiry to investigate and review all aspects of education in the United States. Passow (1984) reviewed for the ERIC Clearinghouse on Urban Education the wide range of reports that were prepared in the space of twelve months following the release of the Nation at Risk report. He has suggested that from this debate a gradual reshaping both of the schools and of American society will emerge. Already there is a renewed interest in science and mathematics education in response to the new demands being made by technological change. There are also moves in some States to raise significantly the starting salaries of teachers. The major concern is with the manner in which schools should change to meet the new demands being made on them by American society, which is itself in a state of change. The emphasis would appear to be more on excellence than on equity, although some recent reports have sought to emphasise both goals.

Transition to Work: Vocational Education for the Disadvantaged

The United States was perhaps the first nation to become concerned with the alarming rate of unemployment among urban youth, particularly among minorities and those living in inner-city, deprived areas. From the early 1960s this concern gave rise to major legislation and programs to combat the problem. The programs introduced were concerned with skills training, job placement and job creation. The retention rates for students to Grade 12 rose in the 1960s to 75 per cent, and have remained close to that level for twenty years. It is clear that while remaining longer at school does something to alleviate the problem for youth who have dropped out from school, the high level of technological development in the United States has made it difficult for appropriate employment to be obtained. The problems of obtaining employment are greatest for those youth from deprived backgrounds who lack the skills necessary to obtain and hold employment. In the period since the early 1960s, the programs aimed at youth have been expanded and developed. Current programs involve literacy training, development of basic skills and job skills, and career counselling. Further programs include the Job Corps, which is a residential program of intensive education, training, and counselling for young men and women; the Summer Youth Program, which provides useful work, basic education and institutional on-the-job training for eligible youth; and the Young Adult Conservation Corps, which provides training and work in conservation, wildlife, and recreation projects. In addition, there are programs under the Vocational Education Act which are allocated to economically depressed areas that have high concentrations of low-income families and high unemployment. These programs are directed towards youth who want to enter the labor market, but who do not have the basic educational and job skills.

While many other developed countries have established programs to provide for youth in their transition from school to work, only in the United States are such programs specifically identified as part of an overall policy to provide equality of opportunity for those from disadvantaged backgrounds. Because of the complexity of the relationships existing in the United States between the Federal and State Governments, the programs introduced more than twenty years ago have been successively extended and modified to meet changing needs, and a growing awareness that the preparation of youth for the world of work is a critical problem. These programs are a responsibility, at least in part, of agencies concerned with the provision of educational services. Many attempts have been made to evaluate the effectiveness of such vocational training programs on the employability of youth who have taken part in the programs. However, the results of these evaluation studies have proved difficult to interpret and the evidence at present available is inconclusive (Jallade, 1985). Moreover, such programs do not provide a comprehensive policy for youth. In order to develop more effective policies, the activities of the many agencies involved would have to be more effectively coordinated. This is unlikely to occur in the United States under the present administration which would appear to be seeking ways of dismantling existing policies and programs rather than undertaking extensions or the development of new services.

Opportunities for Further Learning

There is a further field related to compensatory educational services that involves the provision of opportunities for re-entry into formal education for those who, by choice or from circumstances, were formerly unable to continue with education or training.

The OECD Review Panel into educational disadvantage in the United States has commented on developments in this area:

> Few changes in the contemporary America educational scene have impressed us as much as the evolution of the Community College. Within the last decade more than 1000 individual colleges of this type have been established, in many instances by incorporating former junior or technical colleges ... This type of bridging institution allows for occupational motivation and participation in the shaping and individualising of each individual career (OECD, 1981, p.83).

Many countries have considered the possibility of developing programs of recurrent education. This issue is one to which the OECD has paid considerable attention during recent years (OECD, 1971). However, the Review Panel was impressed during the course of its work in the United States by the "prevailing silence on this topic" (OECD, 1981, p.86). A possible reason for the apparent lack of concern in the United States for the provision of recurrent education programs was the extensive range of services supplied by the Community Colleges, but another possible reason was the growth in educational services supplied by business, industry and the corporations. The cost of these services was estimated to be in excess of $40 billion a year by a recent

study conducted for the Carnegie Foundation for the Advancement of Teaching (Eurich, 1985). The opportunities provided for corporate employees ranged from remedial courses to rectify the shortcomings of inadequate school and college courses through to doctoral programs. It was estimated that nearly eight million adults in the United States were enrolled in these informal programs which were emerging with an academic respectability of their own. The institutions providing these informal educational services are likely to make greater use of new technology and to operate with an efficiency and flexibility that is not present in more traditional educational institutions. The transmission of courses by satellite to corporate classrooms across the country is one example of the innovative use of new technology. It is evident that the provision of educational programs by business and the corporations is unlikely to replace significantly the provision of traditional educational programs. However, they do provide opportunities for further education, particularly for those who have suffered disadvantage, in a manner that is integrated with employment and that has a high degree of flexibility.

The proliferation of remedial work on basic reading, writing and computational skills within these institutions is a significant indictment of school programs. However, in contrast to schools and colleges that are orientated towards individual development, the courses offered also include the teaching of analytical skills and critical thinking, and collaborative activities and group effort. In addition, the courses commonly provide more practical and more clearly relevant skills by training the sales people, repair workers and customers of new technology products.

The Contribution of Educational Research

Carnoy and Levin (1985), in a study of the relations between schooling and work in the United States, have developed a new explanation of those relationships which operate within a democratic State—an explanation that rejects both traditional views and the more recent Marxian view. Whereas the Marxian perspective considers schools as serving a role of training workers who are exploited by capitalist business and industry, the traditional view has been that schools are largely autonomous institutions which are able to pursue the goals of social mobility and equality of opportunity in society. Both polarised perspectives are deficient because they do not recognise the functions of the political processes in a democratic, capitalist State. These political processes provide the setting for the struggle between those who seek to use the resources available to the State for the accumulation of private capital, and those who endeavor to use public funds to pursue egalitarian reforms in society. With changing governments and changing economic conditions, the contest between these opposing forces swings backwards and forwards. If this is a correct view of the political processes operating both in the United States and Australia, then the part to be played by educational research

must be to inform the debate and to ensure that soundly based evidence is available regarding both social inequalities and the economic production achieved by a society as well as the effectiveness and cost efficiency of current policies and future programs that might be introduced.

4. Australian Research into Educational Disadvantage

Recent concerns about inequality in Australian society and in the provision of education were stimulated by the perceptions of Henderson and Harper of the Institute for Applied Economic and Social Research at the University of Melbourne. They suggested that, as a consequence of inadequate income, there were substantial numbers of people living in poverty in the city of Melbourne, where the average living standards were considered to be amongst the highest in the world. In 1966, they instigated a survey of the income and needs of the people of Melbourne. While they acknowledged that any definition of a level of poverty must be relative, they believed that it was possible from a sound factual base to define a level of poverty that would be unchallengeable. It was found that some 7 per cent of the people of Melbourne might be considered to be living in poverty. While the incidence of poverty and need in Melbourne was low, these research workers drew attention to a problem that previously had been largely ignored (Henderson, Harcourt and Harper, 1970). Further debate within the Australian Institute of Political Science in early 1969 helped to direct attention towards the lack of equity in Australian society (Masterman, 1969).

Public concern for the needs of schools and the marked inequalities that existed in the provision of education in Australia was strengthened by the publication, *The Myth of Equality*, issued by the National Union of Australian University Students. This publication was a telling pictorial review of an affluent Australia (Roper, 1970). Several years earlier, Karmel (1964) had drawn attention to the fact that, among Western countries, Australia ranked comparatively low in the participation of its population in education, and in the proportion of its resources devoted to education. In order to widen educational opportunities, it was considered necessary for Australia, as a nation, to raise the proportion of its resources provided for education and to diversify the range of postschool educational offerings, and so lift the level of participation of young people in postprimary and tertiary education. However, at that time, there had been relatively little systematic and scholarly work carried out in Australia into the nature and origins of educational disadvantage, and while the existence of a significant problem was apparent, the detailed evidence on which appropriate solutions to the problem might be based was lacking.

The Inheritance of Inequality and Social Stratification

The foundations for the systematic study of inequality in Australian society were laid in the mid-1960s in the Departments of Sociology and Demography of the Research School of Social Sciences at the Australian National University. The team of research workers, operating within the traditional positivist paradigm, had planned a long-term program of inquiry into the social differentiation and stratification of Australian society and into social mobility from the perspective of the status attainment process. A summary volume (Broom and Jones, 1976)

reported the main findings from the first stages of the long-term program of research that were based on a national sample survey conducted in 1965, following the development of an occupational classification and a scale of occupational status. In 1973, a second and more ambitious national survey on social mobility and social stratification was carried out. Background and technical details of this survey were reported by Broom, Duncan-Jones, Jones and McDonnell (1977), and the substantive findings of this study by Broom, Jones, McDonnell and Williams (1980). This research was primarily concerned with equality of opportunity and the openness associated with the relative chances that people from different social strata had to move into another stratum during the course of their working lives. The researchers stated the questions being addressed as the following:

> How far do social origins, favorable or unfavorable, affect the educational and occupational careers of men and women? To what extent are social inequalities inherited from one generation to the next? How far does the educational system reproduce existing inequalities and how far does it provide an avenue for individual mobility? (Broom et al., 1980, p.2.)

This study demonstrated that inequality was transmitted in Australian society to a significant extent from generation to generation, and that the degree to which family background influenced schooling had remained largely unchanged over the last fifty years. In Australia, the choice of whether a student continued with schooling beyond the minimum age of compulsory attendance was largely a private decision, and was influenced by existing inequalities in resources and opportunities. It was found that approximately half the variance in the socioeconomic positions of families could be accounted for by knowing the positions of their families of origin thirty years earlier. However, there was no direct way of distinguishing the relative contributions of inheritance and achievement to present socioeconomic position. The results supported the view that there was a substantial level of family inheritance in contemporary Australia operating in the status attainment process. However, what is an acceptable or unacceptable level of family inheritance cannot be readily determined. Clearly, there is a task for compensatory educational and social programs in Australia, in order to moderate the effects of the unequal start to life provided by family background and the associated advantages or disadvantages it gives.

In addition to these findings that quite clearly underpin the programs of provision of greater equality of opportunity in Australian education, the Department of Sociology at the Australian National University has made other significant contributions to the investigation of Australian society through studies of the dimensions of urban social structure (Jones, 1969), elites in Australia, (Higley, Deacon and Smart, 1979), and of Aboriginal Australians (Broom and Jones, 1973).

Class Analysis and Educational Inequality

An alternative approach to the investigation of social and educational inequality has been taken by Australian research workers who view societal issues from a perspective of class analysis rather than a positivist framework. The two approaches differ very significantly in the questions they seek to answer, in how the process of investigation is undertaken and how explanation is developed. Class analysis writing tends to be historical in style and more concerned with conceptual issues, while stratification research tends to be empirical and quantitative. The former writers tend to advocate a total reconstruction and the formation of a new society, while research workers in the field of stratification tend to advocate gradual evolution towards a better society. It is important to recognise that each can make a contribution to the analysis and understanding of educational and societal problems. In recent years, a substantial body of writing has been advanced by Connell from the School of Social Sciences at Macquarie University in New South Wales. That writing has had widespread public recognition in Australia (Connell, 1977, 1983, 1985; Connell, Ashenden, Kessler and Dowsett, 1982).

Connell (1977) has investigated the inheritance of inequality and identified two kinds of processes operating in social reproduction:

> processes which distribute people among positions in the class structure and second (and more fundamentally) processes by which a structure of positions and relations among them is maintained in its everyday working. "Occupational inheritance" and "social mobility" are concepts that refer to the first of these forms of reproduction, presupposing the second. The concept of the "reproduction of the relations of production" in Marxist theory refers to the second, and is independent of the first. There can be stability or change in one without the other (Connell, 1977, p.183).

Where Connell differs in his theoretical position from those involved in stratification research is on the stability of the observed structures and how changes in position and in the structures themselves might occur. In a study directly concerned with educational issues titled *Making the Difference: Schools, Families and Social Division*, Connell and his colleagues (1982) used material obtained from extensive interviews with a sample of 100 students, their parents, classroom teachers and school principals to provide an explanation and interpretation of their observations. The manner in which the home and the school operated to maintain the social structure and the prescribed position of each student within that structure are vividly presented. However, since the report was derived from a cross-sectional study, although with some degree of triangulation obtained from four different perspectives, it was not possible for an account to be given of how change occurred within what was seen as essentially a stable setting. At the root of the problems between the family and the school, particularly among working-class students, was the:

> contradiction between the family's practices of cooperative coping and the school curriculum's demands for individual achievement (Connell et al., 1982, p.122).

The processes of the home that build a solidarity among family and friends conflict with the academic curriculum and the processes of the classroom in which the student is encouraged to become an academic achiever. These classroom processes operate in working-class schools for students from working-class homes, but the practices of ruling-class schools and families are more congruent with each other. Moreover, students from ruling-class families are able to exert greater control over the educational processes than are their counterparts from working-class homes.

It is argued by these authors that the traditional processes for change in education—programs for equality of opportunity, for coeducation, and for the introduction of new curricula—are by their nature unable to contribute to social change. Schools as they currently exist maintain the way society is organised, through their emphasis on individual achievement, with the die cast against those from lower strata. The only way to produce change effectively is through the development of an understanding, among students from working-class backgrounds, of how power and leadership are controlled in Australian society for the benefit of those occupying ruling-class positions, their families, and their schools, and how this power is used to consolidate their social positions. For Connell and his colleagues, an understanding is clearly not enough:

> The notion of cause in social analysis has little purchase unless it is linked with social action. What we need for an assault on injustices that exist in and work through, the education system, is knowledge about how a given pattern of social relationships has come into being, how the people in the situation relate to it, and what are its tensions and contradictions (Connell et al., 1982, p.193).

The type of social action that is proposed works within the democratic processes, employing knowledge associated with the use of power to change schools and, through the changing of schools, to gradually change society. What is acquired from schooling is knowledge of the participatory change processes, so that the student's position in adult society can be changed through this knowledge, and subsequently the very structure of society can also be changed. Educational reform involves more than the acquisition of knowledge and an understanding of existing social life. It has concern for the reconstitution of society itself.

Connell and his colleagues argue that just as Australian society is stratified by class, it is also divided by sex, with interaction between class and sex. The relationships between sex, class and culture are expanded in a more recent challenging publication by Connell (1983) titled *Which Way Is Up?* In this book Connell explores Freudian theories of the psychology of sex in relation to views of class. He totally rejects the concepts of role theory advanced by psychologists to distinguish the members of one sex from the other, and the members of

one class from other socially stratified groups. He advances, as an alternative, a theory of social reproduction by which society maintains itself and its existing structure.

These two opposed sociological perspectives, concerned with social stratification on the one hand and class analysis on the other, have provided the theoretical foundations for programs fostering greater equality of educational opportunity in Australia. As we have shown in Chapter 2, there has been a significant shift from one perspective to the other in the writings of the Schools Commission during the past decade, as well as in the policies and programs that have been developed by the Commission.

Equality and the Core Curriculum

Crittenden (1978, 1981) has undertaken a critical examination of successive reports of the Schools Commission to consider, among other questions, the implications of policies of greater equality of educational opportunity for a common or core curriculum. Crittenden (1978) notes that the Report of the Interim Committee for the Australian Schools Commission (Karmel, 1973, pp.22-23) recognised the problems associated with the attainment of the goal that all groups of students should reach an equal average level of educational achievement. Their goal does not, however, imply that all individuals should achieve equally. The problems are partly ones of cost, since the pursuit of equal achievement outcomes for different social groups would prove expensive in terms of alternative services foregone. However, while the Report of the Interim Committee remained very unclear as to the nature and function of a comprehensive core curriculum, it saw the need for children to acquire the necessary basic skills both for participation in the activities of society and to continue with formal education, if and when they chose to do so. It is clear that if any subgroup in society does not have access to the basic skills and to areas of learning that provide the foundations for future learning through a common curriculum, its members would clearly be denied choices at a later stage, and be disadvantaged.

Crittenden noted that the *Report for the Triennium 1976-78* spoke of "threshold levels" of achievement and "a basic plateau of competence", while the *Report, Rolling Triennium 1977-79* noted that:

> there are levels of competence which it is important for all young people to gain, whether they develop interests of a traditional academic kind or not (Australia, Schools Commission, 1976, pp.8-9).

Although Section 13 of the Act establishing the Schools Commission referred to its role in the development of the school curriculum, a role that would seem to be important if the concept of equality of opportunity were to be pursued through a core curriculum, Crittenden (1981) noted that the establishment of an independent Curriculum Development Centre limited the extent to which the Schools Commission could discuss systematically or become involved in curriculum matters. The Curriculum Development Centre became a

strong supporter of school-based curriculum development. While the Commission had been a supporter of devolution of authority in education, in 1978 it expressed anxiety that a school program with a predominantly local orientation could be very limited and thus could affect adversely equality of opportunity (Australia, Schools Commission, 1978). The subsequent reconstitution of the Curriculum Development Centre within the Commonwealth Schools Commission should lead to the development of more consistent policies at the Federal level.

Intervention in Early Childhood Education

Possibly the most important and substantial intervention study to be undertaken in Australian education has been the Mount Druitt Early Childhood Project, a project that has been reported by Braithwaite (1983). The project was an action-based compensatory investigation with a strong research component. Five high-quality preschool programs were established in an area that was considered to be greatly in need in the outer suburbs of metropolitan Sydney. The programs were developed in the context of the New South Wales public school system and are still operating. The study was directed toward meeting the educational needs of families living in new government housing developments. In 1975, the Bernard van Leer Foundation approved a grant to Macquarie University in New South Wales for the development, implementation and evaluation of five different early childhood education programs. The five programs selected for development are described below.

1. *Cognitive Program.* The program was based on the Cognitively Oriented Curriculum developed by Weikart, Rogers, Adcock and McClelland (1971). Though the program relied heavily upon the epistemological writings of Piaget, it borrowed quite extensively from the writings of other educators. It sought to advance the cognitive development of the disadvantaged children through verbal stimulation, involvement of the children with their environment, promotion of sociodramatic play, and the fostering of direct interaction of the children with their peers and adults. The program assumed that children learnt most effectively when they initiated and regulated their own learning. However, the teachers and aides did not institute home visits as Weikart et al. (1971) had considered essential.

2. *Competency Program.* This program was based on the identification of specific competencies to be attained by the children. The teachers were provided with a set of specific competencies, which were drawn from the writings of Almy (1975); Anderson and Messick (1974); and Butler, Gotts and Quisenberry (1975). The program was selective in its approach and incorporated many of the philosophical assumptions which were included in traditional early childhood programs, but learning experiences were organised and evaluated in a much more systematic manner than is commonly followed in normal programs.

3. *Contemporary Program.* This program reflected traditional Australian early childhood educational practice. Since there was no definitive statement on existing early childhood programs, a composite statement was prepared describing contemporary Australian preschool practices from discussion with preschool teachers and college lecturers working in the early childhood field and from observation of practices in nominated high-quality preschools. The structure of the program was child-centred and activity based.

4. *Behaviorist Program.* This program was based on the curriculum developed by Bushell (1973) for the Head Start and Follow Through projects. In essence, the program involved the systematic application of sequencing and reinforcement techniques which were derived from behaviorist learning theories and empirical studies. Specific learning objectives were identified and the progress of the children towards the achievement of these objectives was systematically recorded. Curriculum content chosen from the basic skill areas of prereading, prewriting and prenumber formed the basis of the objectives that the children were to achieve.

5. *Home-based Program.* This program differed from the other four in so far as they operated in preschool centres within primary schools, while the home-based program was implemented within the children's homes. This program was developed from the Head Start Program originally introduced in the United States (O'Keefe, 1979), but modifications were necessary to suit local needs and resources, and teachers rather than nonprofessionals were employed to conduct the program. The relative novelty of the program created some initial problems, but prior to the beginning of the evaluation study at the end of 1976, the program was being implemented effectively. The objectives of this program were specified for the parents as well as the children, since it was the parents who were the central agents and targets of the program, which hypothesised that the ongoing behavior of the parents would affect the children's development to a far greater extent than would the teachers during the limited time of their weekly visits.

While the implementation of these five complex programs presented a range of problems, there was a general consensus based on data collected that these five programs operated largely as intended. The programs were built around the fostering of school and community relationships. However, those goals of the project associated with the attainment of effective school and community relationships proved difficult to achieve. Sometimes the initiatives of the teachers were welcomed, sometimes there was open hostility from the parents towards the teachers. There was little doubt, however, that the project's activities laid the foundations for effective involvement of the community in the work of the school.

The study provided answers to the following main questions.

1. Does enrolment in preschool programs benefit children?
   There were no significant differences between the mean performances of the preschool and non-preschool groups on the five

outcome measures which were given at the end of the preschool year. There were, however, significant differences in three of the five outcome measures at the end of the first year at school—the Kindergarten Year. Nevertheless, on appropriate achievement tests given at the end of the next year—Year 1—no significant differences were recorded between the preschool and non-preschool groups, although the preschool group was still performing significantly better on some conceptual mathematics tasks.

2. *Does continuity of the program over three years have a marked effect on children's performance?*
   The evidence provided tentative support for the benefits of continuity of program during the Kindergarten Year, but indicated that by the end of the next year (Year 1) at school, the superior performance of the children who had attended preschool was maintained on only a few measures.

3. *Were there any differential effects produced by the various programs?*
   Because of the different theoretical bases, objectives and experiences provided in the five programs, it was expected that differences would be recorded on specific learning outcomes. There were significant differences between programs at all three times, the end of preschool, Kindergarten and Year 1. The evidence indicated that the children in the Behaviorist Program tended to do better overall than children in the other programs. The gains were small and, in general, not inconsistent with the objectives of the programs.

4. *Did the programs facilitate the social development of children?*
   At the preschool level, significant changes in the desired direction were recorded for the Cognitive, Competency and Contemporary Programs, while in the Behaviorist Program there were no changes. In the Competency Program there was a higher mean level of behavior associated with anxiety at the end of Term 2.

5. *Were there any unexpected effects generated within the project?*
   A surprising and unexpected outcome was the way in which the parents in the Home-based Program established a network to organise other social, educational and welfare activities that extended beyond the original intentions of the project. In addition, where the Project staff had initially approached the study from an interventionist perspective, when confronted with the realities of working with schools and the community day-by-day, they changed to an interactionist approach as the only practical way of achieving their objectives. They advanced the view that the interactionist approach was the only one that could be adopted successfully when working with disadvantaged groups.

6. *Did enrolment in preschools affect the attendance patterns of children in Kindergarten and Year 1?*
   It was clear that in both Kindergarten and Year 1 classes the preschool children were absent from school less frequently than non-preschool children.

7. *Were the preschool programs differentially effective for children who entered preschool with different ability levels?*
   In general, the different programs appeared to affect equally the performances of children of different abilities, although the sizes of the program groups were too small for an effective examination of these relationships (Braithwaite, 1983, pp.196–249).

This is one of the most substantial educational research studies to be conducted in Australia. The project was undertaken as an intervention study in the hope that evidence would be provided to support large-scale intervention programs. The findings are generally consistent with the results of similar studies which have been conducted overseas. In the main, the gains to be achieved from preschool programs are small and are not maintained as far as school achievement is concerned during the years of primary schooling. The long-term impact of these programs could not be investigated. In concluding his report, Braithwaite (1983) emphasised that school failure must be considered to be a cumulative phenomenon whereby children from disadvantaged environments find themselves being penalised increasingly because of their home backgrounds. To offset this, school and preschool programs must involve the active participation of parents and the wider community to provide cumulative benefits over a longer term than could be envisaged within the domain of a single limited-term study.

Disadvantage in Australian Schools

EXPOSING THE PROBLEMS

At the same time as there was concern with poverty in Australian society, educational research workers (for example, Balson, 1965) in the Australian context were beginning to expose the magnitude of problems for educational planning and development—problems associated with unequal participation in education by different social groups. Keeves (1968), from a survey of students in government schools across Australia conducted in 1964, presented evidence of the marked bias that developed in participation in schooling between Year 8 and Year 12. This bias was expressed through the education levels of the parents of the students, the occupational status of the father (using an internationally developed occupational scale, because a valid and reliable Australian scale was not available at that time), and an index of rurality. The evidence showed significant differences between the Australian States in the incidence and extent of bias. Furthermore, although the samples were restricted to students in government schools, significant relationships were recorded between the status of father's occupation, levels of father's and mother's education, and achievement in mathematics at Year 8. For status of father's occupation, this relationship remained after a substantial number of other relevant factors had been taken into account. These findings were strongly endorsed in a second study, which included all Australian States and schools of all types, that was conducted in 1970 (Keeves, 1975). Further analysis of these data, for example, Rosier (1974), showed that the influence of the school was only moderate in relation to the sociocultural factors associated with the home backgrounds of students.

A collection of Australian studies on inequalities in education which was edited by Fensham (1970) brought forward further evidence of the social determinants of educational inequalities. From these sources, it was learnt that metropolitan and rural areas differed substantially in participation rates. Ethnic background and migrant origin were also of importance, although among immigrant students there were found to be wide differences in educational background and educational outcomes.

IDENTIFYING DISADVANTAGED SCHOOLS

The establishment of the Disadvantaged Schools Program by the Schools Commission in 1973 led to studies concerned with the development of a valid and reliable index of educational disadvantage. Clements and Rosier (1974) have reported on the construction and validation of the Schools Priority Index that was used by the Supplementary Grants Committee of the then Victorian Education Department for the allocation of grants to disadvantaged schools during the early years of the project. Five factors were selected for the index: demographic characteristics of the school neighborhood provided by the Schools Commission; socioeconomic level of the fathers of the students at the school; the proportion of migrant students from non-English-speaking backgrounds in the school; the percentage of students at the school receiving extra governmental financial assistance; and teacher turnover between school years. The first factor was a characteristic of the community served by the school; the last listed was a characteristic of the teaching staff of the school; and the remaining factors were indicators of the home backgrounds of the students attending the school. The data for each of the five measures were distributed into five categories, with each category containing an equal number of schools, and a rank-scaled score of one to five was assigned. The scores on the five measures were added, resulting in scores ranging from five to twenty-five. A validation sample of thirty schools was selected and teams of teachers provided judgement ratings on a scale of one to nine which assessed the degree of educational disadvantage experienced by the school. The judgement ratings from the different raters were averaged for each school and were correlated between schools. The mean judgement ratings of assessed disadvantage correlated 0.55 with the Index total score. The highest correlation was 0.53 with the percentage of the students at the school receiving financial assistance and the lowest correlation was 0.11 with teacher turnover. This objectively scored index was used for many years in Victoria for the allocation of grants to schools.

Goldman and Rowley (1977) used a large and representative sample of students from 237 primary and postprimary schools in the Melbourne metropolitan area to examine the validity of the Schools Commission Index measuring the educational disadvantage of schools in terms of the predictive power of the Index for student achievement in the subject areas of reading and mathematics. The Index was a weighted sum of thirty-eight census variables (occupation, housing, schooling, employment, migration, residential mobility, ethnicity and religion) which were associated with the catchment area served by each school. Weights were allocated to each variable to maximise the discriminating

power of the composite. The study reported that for both primary and postprimary schools there were clear and systematic differences in reading and mathematics achievement with respect to schools grouped into quintiles according to their scores on the Schools Commission Index. The differences were least in mathematics achievement and greatest for word knowledge.

More recently, Ross (1983) completed a study that used achievement test performance to identify appropriate census variables, which were then used to provide social area indicators of educational need. After reviewing the current use of indicators for allocating resources to disadvantaged schools in Australia, Ross developed a statistical model for examining the consequences of using indicators of educationally disadvantaged schools. The indicators sought to assess the accuracy with which resources could be delivered to students in schools according to need as measured by performance on achievement tests. Regression analysis procedures were used to select census variables associated with school neighborhoods in order to optimise the relationships between the indicators and school mean scores on a test of Word Knowledge. The performances of alternative indicators were compared with respect to their ability to:

1. predict the mean achievement score for a school;
2. predict the incidence of learning handicaps experienced by students in a school;
3. maintain stability in the predictive power of the mean achievement score for a school across different samples of schools and students;
4. be used without the need for supplementary information to describe the characteristics of the school; and
5. show high levels of accuracy in the identification of students greatest in need of assistance in their education.

Approximately 50 per cent of the variance between schools in their average level of achievement on a word knowledge test could be accounted for by the best index which used twenty-six census variables.

From this study, it emerged that the neighborhoods surrounding disadvantaged schools were characterised by a cluster of factors concerned with socioeconomic status, ethnicity and familism, or the living arrangements of families. The findings from this investigation are currently being used to improve the accuracy with which resources are being distributed between the Australian States by the Commonwealth Schools Commission through the Disadvantaged Schools Program. The availability of an appropriate body of data on large, Australia-wide samples of schools enabled Ross in his study to achieve a linkage between census data and achievement outcomes in order to predict as accurately as possible those schools that would contain students with the lowest level of performance, and thus the greatest level of educational need. The variables employed in the indicator which optimised relationships with achievement were the expected ones of socioeconomic status, ethnicity and familism. This is reassuring and the use of these variables has a high degree of face validity. Furthermore, while some error in prediction occurs from the use of these procedures in nonurban areas, they have a high level of objectivity and are

uncontaminated by the political processes that commonly operate when resources are being distributed.

IDENTIFYING DISADVANTAGED STUDENTS

Whereas the programs of the Schools Commission were directed towards providing for those schools that were identified as being disadvantaged, the House of Representatives of the Commonwealth Government, in 1975, established a Select Committee to investigate the needs of individual students with specific learning difficulties. This Committee recognised that some students in Australian schools, because of specific learning problems and social, economic, ethnic, geographic, cultural or linguistic handicaps might be failing to achieve an adequate level of competence in the basis skills of literacy and numeracy before they left school at the end of the period of compulsory schooling. Consequently, the Australian Council for Educational Research was approached to obtain evidence on the nature and the extent of the problems associated with the disadvantage experienced by individual students (Keeves, Matthews and Bourke, 1978).

The study that was undertaken employed tests of mastery in the basic skills of reading, writing and number work to assess student performance, and questionnaires to teachers to obtain information on background factors likely to be linked to handicaps operating against the effective learning of the skills of literacy and numeracy. The factors investigated included physical and behavioral disabilities, ethnic background, race, languages used in the home, sex, family size, cultural backgrounds, and location of school. Relationships were sought between these factors and mastery on the tests. The results showed that there were a minority of students—estimated to be approximately 25 per cent of the 14-year-old age cohort—who, shortly before they were free to leave school, had not achieved mastery of the fundamental tasks included in the tests. At the 10-year-old age level, a rather higher proportion, slightly less than 50 per cent, had not achieved mastery on the reading tests, and approximately 25 per cent had not achieved mastery of the number work tasks.

An important finding was that 15 to 20 per cent of the students at both age levels were seen by their teachers to be in need of remedial instruction in reading and number work. Moreover, from the evidence collected, between 1 and 2 per cent of students at both age levels were suspected or known to have defective vision but did not wear glasses, and similar proportions had hearing defects, but did not have hearing aids. Just under 3 per cent of students suffered from a lethargic condition, while just under 2 per cent were considered to be hyperactive and unable to sit still even for a short period. Behavioral problems, such as shyness, self-isolation, inability to cooperate with peers and frequent demanding of attention were likely to be found in one child in every class of thirty. In addition, approximately 2 per cent of children at each age level were rejected or avoided by other students. The most widespread of the basic educational handicaps noted was frequent or prolonged absence from school. Furthermore, 4 per cent of students were considered to be unable to comprehend

English well enough to be able to cope with normal classroom lessons. Children with the disabilities referred to above, in general, performed significantly below normal children without these handicaps.

The incidence of these disabilities and the extent to which children in normal schools in Australia were not performing at a satisfactory level on these tests of the basic skills exceeded general expectation. As a consequence, substantial efforts were made both inside and outside the schools to provide solutions to the problems detected by the study. It was clear that no single approach would remedy the situation documented for the House of Representatives, but awareness of the nature and the extent of the problem was seen to be a necessary first step. The major issue was whether the problems that were reported would be treated adequately by existing programs or whether additional efforts were required.

The House of Representatives Select Committee on Specific Learning Difficulties, in its report (Cadman, 1976), made recommendations on the funding of special education to assist students with disabilities and emphasised the need for the improved preparation of classroom teachers through preservice and inservice courses. While special programs have not been introduced to compensate for the disadvantages experienced by students, there has been greatly increased attention given within schools and teachers colleges to the teaching of the basic skills. A survey undertaken in 1980, five years after the initial study reported above, provided evidence of recognisable gains in mastery of the basic skills by students aged 10 and 14 years (Bourke, Mills, Stanyon and Holzer, 1981).

POVERTY AND EDUCATION IN AUSTRALIA

In August 1972, an independent nonparliamentary Commission of Inquiry into Poverty in Australia was announced and Professor R.F. Henderson, Director of the Institute of Applied Economic and Social Research at the University of Melbourne, was appointed to undertake the Inquiry. Subsequently, the scope of the Inquiry was broadened and Dr R.T. Fitzgerald of the Australian Council for Educational Research was appointed to investigate and report on the relationships between poverty and education in Australia. The report of the Commission focused attention, in the main, on two aspects of the problem, namely the education of Aborigines and the early school leaver. The Inquiry was fortunate to have sufficient resources to be able to commission twelve research studies into aspects of the problems confronting early school leavers. This represents one of the largest and best coordinated series of investigations into educational problems ever undertaken in Australia. A listing of the titles of these studies provides a clear view of the range of issues considered.

1. *Never Had a Chance*—an analysis of the factors influencing stable employment and opportunities for retraining among poor families (The Brotherhood of St Lawrence, 1976).
2. *Non-participation in Continuing Education* (Haines, 1976).
3. *The Concept of the Community College* (Dennison, 1976).

4. *Factors Affecting School Leaving and Work Decision for Girls*—school organisation as a determining factor in initiating disadvantage (Knight, 1977).

5. *Prospects for School Leavers*—a comparative study of the educational and vocational opportunities of 14–15-year-olds in Queensland (McGaw, Warry, Varley and Alcorn, 1977).

6. *Schooling and Work*—a follow-up study of the career choice of 23-year-olds in urban and rural communities in Tasmania (Behrens, 1976).

7. *School and Neighborhood in Two Rural Towns* (Musgrave and Wind, 1976).

8. *School Welfare Provision in Australia*—statutory support services in government schools (Craft, 1977).

9. *The Red Cross School Volunteer Project*—nonprofessional intervention in the educational progress of disadvantaged children (Toft, 1977).

10. *Truancy and Latch-key Children in Brisbane*—a study of aspects of truancy among Queensland primary and secondary students (not published).

11. *Poverty, Education and Adolescents*—a study of experiences and outcomes (Wright, Headlam, Ozolins and Fitzgerald, 1978).

12. *Disadvantage at School and Post-school Experience* (Stroobant, 1978).

It was perhaps ironic that after four years of sustained work, when the time came for the reports to be published, the government of the day appeared unconcerned with the issues, even though the problems of youth unemployment had recently become critical.

The report acknowledged a widespread belief in the Australian community that education, more than any other approach, was considered to provide the best solution to the problems of poverty. Poor people were commonly convinced that if they had worked harder at school, stayed longer and obtained a better qualification they would have been better off. However, the evidence assembled in the report questioned the validity of certain aspects of such beliefs.

> Our investigation of the outcomes of schooling has revealed that success in school and in the competition for rewarding careers is largely determined by such factors as social class, ethnic background and geographic location. The structural inequalities in our society are nowhere more evident than in our school systems. Far from being a way out for poor people, schools act as a sorting, streaming mechanism helping to maintain the existing distribution of status and power. The belief that schools provide the best possible potential for intervention in the poverty cycle is in conflict with the actual function schools carry out in ranking students on the basis of their congruence with school values and consequent

academic success (Australia, Commission of Inquiry into Poverty, 1976, pp.227-28).

The report argued that the solution to the structural rigidities of the school and the educational system was not to reject the function of education as providing a way out from poverty, but rather to provide greater flexibility throughout the education process and so enable those who were disadvantaged to profit from the opportunities available. This would involve encouraging students to stay longer at school, developing better advisory and vocational guidance services, providing adequate financial support to make the option of staying at school a reality for those who wished it, and changing the relationships between education and employment. It was maintained that for adolescents who were poor the development of skills and the availability of opportunities for initial employment were of first priority. The report proposed that the stage of transition of youth from school to work should be viewed as the commencement of a period of continuing education. Initiatives that would link opportunities for part-time work with part-time education and training were seen to have particular benefits for those from poor families. Such programs and policies would of necessity build on the aspirations of young people for a worthwhile job and further training, but would also take account of their negative reactions to the formal classrooms that they had experienced at school, as had been clearly shown by Wright and Headlam (1976).

The report argued that colleges of technical and further education and community colleges would have a significant part to play in the development of the alternative approaches to education and training, providing formal recognition within the framework of postsecondary education. The danger that the tertiary institutions would continue to block the way to further education for less-advantaged people would need to be removed, if necessary, by requiring such institutions to explain and justify on both social and educational grounds their arbitrarily exclusive entry policies.

The report expressed great concern for the terms on which opportunities for learning were offered to poor and disadvantaged peopled, particularly Aborigines, who emerged as the most culturally deprived group of all. The powerlessness of the Aboriginal people and the cooperative nature of Aboriginal society demanded that, in the development of future policies and programs for the education of Aborigines, the principle of self-determination should be paramount. Moreover, concern was expressed that all educational institutions should become more responsive to guidance from their disadvantaged clients. The research undertaken by Haines (1976) had emphasised that adherence to the principle of self-determination was important for all poor people if they were to develop their competence to manage their own affairs and have greater involvement in the management of society. These changes could only be accomplished successfully if schools and other educational institutions provided greater opportunities for participatory decision making by students, teachers and parents in the programs and curricula offered by schools.

In conclusion, the report emphasised that "Education cannot serve as a panacea for poverty". Thus, the provision of extended or new educational services for disadvantaged groups in Australia should not be considered in isolation but in association with other social and fiscal policies.

An important strand in the report, which was dependent on the relations between policies developed in the areas of education and work was concerned with providing opportunities for adults to benefit from re-entry to learning. The evidence before the Commission showed that not only had the great majority of poor people left school before obtaining an appropriate qualification, but also that people in low status jobs had no real opportunity to undertake further study or training because of the nature of their jobs. The model of a Community College which had been developed in the United States was seen to provide opportunities for a range of learning activities to meet the needs of the early school leaver. McKenzie (1983) has more recently examined the economic and equity issues associated with the provision of opportunities for recurrent education in Australia and has argued that resources could be made available within the foreseeable future in Australia, if re-entry to education was considered to have a sufficiently high priority when considered among other alternatives.

Transition from School to Work

Williams, Clancy, Batten and Girling-Butcher (1980) have reported on a study of approximately 5000 students, aged 14 years in 1975, who were followed as they continued at school or left to seek entry into the work force in the summer of 1978–79.

EQUALITY, STAYING AT SCHOOL AND ACHIEVEMENT

The relationships reported by Williams et al. (1980) for such variables as family size, showing a lower level of performance for larger families, and father's occupation, showing a markedly higher level of performance for students from higher status homes, were largely as might have been expected. However, a significant degree of disadvantage was also found for students from a non-English-speaking background. These students showed lower levels of performance on reading and number tests after such factors as the socioeconomic status of the home had been taken into account. Nevertheless, with other things equal, they stayed at school approximately three months longer. In contrast, there was no clear evidence that students from rural schools were disadvantaged in their education in the learning of the basic skills. However, the degree of rurality of a school did tend to decrease the students' chances of staying longer at school after other factors in the analyses had been considered.

The differences in level of student achievement between the States were relatively small, except that, when other things were equal, approximately 10 per cent more students in Queensland, compared to the rest of Australia, achieved mastery on the test of numeracy that was administered at the 14-year-old level. This result was considered to be

a consequence of differences in practices between the States. In Queensland, right through primary school, the amount of time given to the study of mathematics exceeded that provided in the other States. Thus, the superior performance of the Queensland students in numeracy was probably a result of the fact that they spent more time studying mathematics (see Keeves, 1968). This effect is of some practical consequence because it indicates the magnitude of the level of improvement that could be achieved by simply changing the curricular time given to study in a particular field. It shows that some improvement in level of achievement could be obtained if a decision were made to this effect.

There were also substantial differences between States in the tendency for students to stay at school to the age of 17 years. Compared to New South Wales, some 22 per cent more students in the Australian Capital Territory and some 13 per cent fewer students in Tasmania stayed longer at school. These were the extreme values for staying on at school across Australia and would not appear to be directly related to the provision of upper postprimary schooling in senior colleges at Years 11 and 12. With New South Wales taking a middle position, the ACT, Victoria and South Australia had above-average levels of retention.

ENTRY INTO THE WORK FORCE

Among the early school-leavers, there were no statistically significant differences in the ease with which those students who had achieved mastery of the tests of literacy and numeracy found their first job. However, each additional year of schooling reduced by one month the time it took a student to find a job. Presumably employers considered the level of schooling attained when recruiting new workers, but they had no way of knowing the actual level of a student's performance on the basic skills of literacy and numeracy. Relative to those born in Australia, early school-leavers from non-English-speaking backgrounds took more than a month longer to find their first job. Furthermore, the sex of an early school-leaver had a substantial influence, with female early leavers taking one to four months longer to find their first job. This result was probably not a question of discrimination on the ground of sex, but rather, lack of availability of suitable employment for young girls. It was of interest to note that, other things being equal, early leavers from rural schools found their first job slightly more quickly than did their counterparts from metropolitan schools.

CONTINUING IN EMPLOYMENT

Two aspects of the early school-leavers' employment were investigated. First, whether the young person had ever been unemployed, and secondly, the number of months of unemployment up to December 1978. While the effects associated with mastery of reading skills were nonsignificant, those associated with the mastery of numeracy skills were significant and of some interest. Ten per cent fewer of those early school-leavers who demonstrated mastery of the numeracy test had ever experienced unemployment, other things being equal, and on the average this group experienced a month less unemployment and obtained higher status jobs than did the group who failed to master the number skills tested. Although employers seemed unable to take

competency in the area of number into account in the selection of employees, they did seem to assess performance in this skill on the job and to reward with continuous employment those who were proficient.

It is important to note that, with other things being equal, each extra year of schooling a student obtained decreased the probability of unemployment by 14 per cent, decreased overall unemployment by one-and-three-quarter months, and enabled the student to find a job generally substantially higher in status. Coming from a rural background or from a non-English-speaking background would appear to have no statistically significant relationship with extent of unemployment, the probability of unemployment, or the status of a job. The only significant effects reported were confined to the English-born group, who, compared to the Australian-born group of early school-leavers, were more likely to have been unemployed at some time. On the average they had been unemployed three-quarters of a month longer.

Social background effects were small and limited to those involving family size and father's occupation or employment. Early school-leavers from large families were more likely to have experienced unemployment and to have been unemployed longer. Early school-leavers from families which were socioeconomically advantaged, having taken longer to find a first job, were less likely to become unemployed or to have been unemployed for shorter periods. Female early school-leavers entered higher status occupations on leaving school than did males, this probably being more a function of the kinds of job available to them, commonly of a clerical nature, but were more likely to have experienced unemployment. In addition, on the average, they were unemployed one-third months longer than were male early school-leavers after other factors had been taken into account. It is clear that, leaving school, girls experienced more problems in obtaining employment than did their male counterparts.

From the evaluation of educational programs for unemployed youth (Hubbert, 1980) and pre-vocational and pre-apprenticeship programs conducted by colleges of technical and further education (Ainley and Fordham, 1979), it is possible to make some generalisations about factors which would seem to be related to the conduct of successful programs which are provided outside formal educational settings to assist youth in transition from school to work.

1. The programs should not be solely concerned with providing training in a specific skill; they should serve many purposes.
2. Longer term programs are more successful than short-term ones, although they have the disadvantage that smaller numbers receive benefits from the programs.
3. Programs which are most successful are conducted in situations that simulate the workplace and are thus removed from formal educational settings.

4. The success of a program is increased by the provision of financial support slightly in excess of the minimum amount available from the dole, together with the availability of a travelling allowance where appropriate.

5. The quality of the staff who conduct a course contribute significantly to its success. Staff with considerable experience in industry and in the workplace outside a formal educational setting have advantages.

6. It is desirable for programs to have a core of full-time staff to run them, so that these staff can maintain close contact with youth undertaking the programs.

7. In successful programs there is a sharing of the planning between learner and teacher, so that the learner is, in part, responsible for the learning experiences undertaken.

8. The practical components of a course need to be meaningfully integrated with the theoretical components, whose relevance should then be more clear to the student.

9. The programs should maintain a liberal view of education but should relate the learning offered to the world of work, rather than to further academic study.

10. The program should meet the needs and interests of youth with the provision of opportunities for success in the mastering of new skills (adapted from Keeves, 1981).

TRANSITION TO FURTHER EDUCATION AND TRAINING

The Commonwealth Tertiary Education Commission (1982) has presented important findings from the Youth in Transition Study being conducted by the Australian Council for Educational Research. In the analyses reported, students aged 14 years in 1975 were subdivided into four quartile groups according to their performance on tests of the basic skills of literacy and numeracy. Only 15 per cent of the lowest quartile (Q1) group proceeded to Year 12, compared with 75 per cent of the highest quartile (Q4) group, while only 44 per cent of the Q1 group were engaged in any further study, either full time or part time, at the age of 19 years, compared with 70 per cent of the Q4 group. For those persons who were in the full-time labor force in 1980, 14 per cent of the Q1 group were unemployed compared with 4 per cent of the Q4 group. For female youth, the proportions of unemployed were 20 per cent for the Q1 group and 5 per cent for the Q4 group. In addition, apprenticeship courses were a significant attraction for male youth in all quartiles. By the age of 19 years, more than 35 per cent of males in the Q1, Q2 and Q3 groups were apprentices, and even in the Q4 group more than 20 per cent of the males had entered apprenticeship courses. A further important aspect of the evidence available was the strong interest in employment rather than study of some youth in the top quartile, and the concentration of low-achieving youth in the less attractive postschool destinations—dead-end jobs or total withdrawal from the labor force and education.

Access to Tertiary Education

Hayden (1982) has reported a review of factors affecting participation by youth in tertiary education. He argued that there were two very different conceptual perspectives from which the problem could be viewed—the economic approach and the social-psychological approach. The latter approach has been more widely used and has viewed the issues in terms of factors such as family socioeconomic background, family ethnicity, ability, motives and values. Hayden also noted that the economic factors tended to influence those who had a marginal commitment to education while the set of social psychological factors were of importance for most students.

A substantial body of previous Australian research (Rosier, 1978; Williams et al., 1980) would appear to have established that the main influence of the socioeconomic status of the family was in determining those who remained at school long enough to enter Year 12. Socioeconomic status was not found to be a major determinant of success in performance in a matriculation examination (Comber and Keeves, 1973; Thomson and Slee, 1975; Ainley, 1978), or of those who chose to continue with their studies at the tertiary level (Blandy and Goldsworthy, 1975; Lewis, 1978; Beswick, 1979). Hayden (1982) has reported that the factors which appeared to be the most significant in predicting direct transition from school to higher education were in descending order of importance:

1. parental encouragement to undertake higher education;
2. achievement in a matriculation examination;
3. occupational and career aspirations;
4. studying mathematics and science courses at Year 12;
5. encouragement from teachers to undertake higher education; and
6. not anticipating financial problems during the years of tertiary study.

It was also noted that those students who reported that finance was an important reason for not proceeding to higher education, also reported significantly lower levels of parental encouragement to undertake higher education. The importance of motivational and achievement influences on the decision to proceed with higher education is evident as is the absence of the direct influence of socioeconomic status. The former groups of factors may, however, be seen to be related to significant cultural differences between different social class groups. However, the relevance of motivational factors for success in tertiary studies cannot be denied. Thus it must be argued that it is clearly not enough merely to encourage students from disadvantaged or lower socioeconomic status backgrounds to remain at school to Year 12 in order to ensure that they have the opportunities for further study. It is also necessary for them to be motivated to continue with study at the tertiary level, and to take an appropriate range of subjects as well as to achieve at an adequate level to ensure success in the process of selection for entry to tertiary education.

It is of considerable interest to examine the factors that affect participation in tertiary education for borderline cases, and here the economic approach has started to feature prominently in the

discussion of the issues within Australia. The abolition of teaching scholarships and a predicted surplus of teachers contributed significantly to a decline in places as well as applicants for teacher education courses. Such courses more commonly attract female students, and a substantial decline occurred in the late 1970s in the rate of transition of female students from Year 12 to higher education courses. In addition, there was a turning away by young male students from postcompulsory schooling and higher education. These reductions in numbers were offset by the increased adult entry of female students into higher education courses, so that the total numbers of students attending university and college of advanced education courses increased slightly in the late 1970s and early 1980s. Thus, at this time, it would appear that young males on the borderline between undertaking either postcompulsory education or employment chose to enter employment, largely on economic grounds.

Hayden (1982) provided evidence to show that the benefits in income to persons with a postschool qualification or with a university degree had declined noticeably during the decade from 1968–69 to 1978–79. Thus the return to a student from undertaking higher education had fallen, and this could have influenced the decision of a potential student on the borderline. With the abolition of fees in universities from 1974, certain direct costs of higher education have declined, but the benefits under the main student financial support scheme, the Tertiary Education Assistance Scheme (TEAS), have not been fully indexed with inflation. Consequently, it is not surprising that two survey studies, the *Evaluation of the Tertiary Education Assistance Scheme* (Beswick, Hayden and Schofield, 1983) and the investigation, *From School to Tertiary Study* (Elsworth, Day, Hurworth and Andrews, 1982), have revealed that perceived costs were an important predictor of participation in higher education. The first study found the costs factor to be of importance in deciding to defer and not to proceed directly to higher education, while the second study found the costs factor to be relatively important in deciding not to accept the offer of a place in higher education in the year following completion of the matriculation examination. The evidence from the *Regional Colleges* study (Anderson, Batt, Beswick, Harman and Selby-Smith, 1975) indicated that an important influence on the enrolment decisions of country students was costs. As these have increased, the access to higher education of country youth, who of necessity must live away from home, has been reduced.

Anderson and Vervoorn (1983) have also published a review of the evidence associated with patterns of participation in postsecondary education in Australia. They have drawn attention to the fact that participation in university and college education shows a marked degree of selectivity with respect to socioeconomic background. Continuing with higher education is noticeably lower for a student from a low-status background than for a student from a high-status one. However, as already pointed out, selection takes place primarily during the years of postcompulsory schooling in the transition from Year 10 to Year 11, and from Year 11 to Year 12, and not during the transition from Year 12 to tertiary or higher education. With the changes in retention rates to Year 11 and Year 12 levels that have occurred since

1983, (Ainley, Batten and Miller, 1984), it might be expected that some change in the patterns of transition to postsecondary education will occur. Burke and Davis (in press) have suggested that lower socioeconomic groups and migrants may have benefited from somewhat easier access to higher education in the late 1970s, but that recent tightening of selection may be reducing their participation rates.

Anderson and Vervoorn (1983) also contend that with the expansion of universities and colleges of advanced education since the 1960s there has been no increase in the spread of home backgrounds of students undertaking higher education. Thus, they claim, the abolition of fees and the marked expansion in higher education has not resulted in increased opportunities for students from lower status homes to participate in higher education. Unfortunately, the evidence which they presented was, in the main, limited to one institution, the University of Melbourne, which prior to the 1960s was the only university in Victoria, but which has become the most selective of the four universities now in Victoria, particularly in terms of achievement and status of the home backgrounds of its students. Under these circumstances it is necessary to question the validity of Anderson and Vervoorn's (1983) comparisons and thus the strength of their conclusions. It is to be regretted that adequate data are not available to provide a sound test of the hypothesis that has been advanced.

Anderson and Vervoorn (1983) have also reviewed studies of the educational aspirations and participation in higher education of students of migrant background (Taft, Strong and Fensham, 1971; Taft, 1975; Turney, Inglis, Sinclair and Straton, 1978; Martin and Meade, 1979; and Isaacs, 1981). In general, these studies have shown that students from non-English-speaking backgrounds were more likely than Australian and other English-speaking students to undertake higher education. This is strongly confirmed in recent reviews of the evidence by Sturman (1985) and Burke and Davis (in press). Students born in Australia but with parents born in non-English-speaking countries, with a few exceptions, have a relatively high rate of participation in higher education, though often a relatively low rate of participation in TAFE. Nevertheless, many additional migrant students expressed high aspirations, but their level of achievement was not high enough to warrant selection. It has been suggested that this was a consequence of their limited knowledge of English.

An Alternative Approach to Research

The Australian investigations into the issues associated with educational privilege and disadvantage reviewed in the sections above have involved a body of research that has been conducted within a strongly empirical and positivistic paradigm. An alternative approach to research in which inquiry is undertaken within the humanistic paradigm involves historical, philosophical and anthropological traditions. Issues relating to inequalities in Australian education have been investigated using the humanistic paradigm sometimes largely from the theoretical perspective of class analysis, which was considered earlier in this chapter. These studies have provided an interpretation of aspects of Australian education that would appear to be increasingly popular.

From an historical perspective, McCallum (1979) has examined the writings of Australian educators during the major period of educational reform in Australia that started in the decade from 1935 to 1945, in order to trace the formation of consensus regarding the place of education in the development of a new democratic order based on equality of educational opportunity. In the years that followed, there was marked curriculum reform and expansion in educational opportunities that was accompanied by more equal provision for education. The next phase of development occurred in the early 1970s in which there was widespread support for policies based on the concept of "need" rather than on "merit". Lamb (1984) has examined the different research and theoretical strands which have contributed to this change and to contemporary thinking about the issues of educational equality.

Teese (1980) has analysed the writings of Bourdieu and Passeron (1977) and has argued that if pedagogical reform were to be influenced by a knowledge of cultural inequality and by decisions to reduce this inequality, then a detailed understanding of the network of interrelationships was a necessary prerequisite. Lamb (1985) working within the framework of Bourdieu's theories has undertaken an analysis of the cultural and social characteristics of the school population and has shown that staying on at school is the product of a process of cultural selection, which, in turn, is conditional on social selection.

A study by Roberts (1985) investigated the processes of social and cultural reproduction and sought to show how it operated at the postsecondary school level in Australia to lead to unemployment for youth from working-class homes, and to provide opportunities in higher education for those from ruling-class homes. Roberts found that while, in general, reproduction theory assisted in the interpretation of his evidence, it failed to account for the entry of working-class youth into higher education, or the fall of working-class youth into an anomic state after a prolonged period of unemployment. In addition, Branson and Miller (1979) examined the workings of capitalism in Australian society, using data from a large national survey of achievement in science. They considered, in particular, the interplay between ideology, culture and formal education in the reproduction of labor. This work claimed that education in Australia was clearly restricted by capitalist production, and in spite of recognition of the ideologies of equality and individualism, the educational system served to legitimate class differences and to reproduce inequalities necessary for capitalist production, inequalities that were based on class and sex.

At the institutional level, McDonald (1982) has demonstrated how, through the control of knowledge with respect to both the processes of decision making and the availability of scarce resources, power can be exercised to affect the life chances of a group of migrant students. The study involved a documentary analysis of historical records which showed the failure of politicians and bureaucrats to cater for the needs of migrant students in a particular school. In his writings, Connell (1977, 1982, 1985) and his colleagues have endeavored to show how the processes of education work through schools, teachers and students and their families to transmit inequalities from one generation to the

next. However, Connell has developed interpretations that link across the student, school and societal levels.

As a consequence, Connell is highly critical of current approaches to the overcoming of educational disadvantage. However, he does not advance in detail an alternative strategy, arguing instead for recognition of the "emancipatory possibilities of education" and the development of a broader approach that empowers students to change society through the employment of democratic political processes.

Conclusion

From the review of research which has been undertaken in Australia during the past twenty years, there is clear evidence of relatively widespread educational disadvantage associated with socioeconomic background. The expansion of postprimary education that took place after World War II, and the establishment of a system of comprehensive and coeducational schools within the government sector have avoided some of the major problems encountered in the provision of greater equality of educational opportunity that have developed overseas. Likewise, in Australia the setting up of a three-tiered system of tertiary education, with universities, colleges of technology and of advanced education, and colleges of technical and further education has permitted expansion to take place with a greatly increased range of opportunities being provided. Nevertheless, progress through the postprimary school, and on to what is clearly a privileged education at the upper postprimary and the tertiary stages is influenced, in the main, by level of achievement and by the aspirations and motivations of the students and their parents, and by family wealth.

However, there is strong evidence that the home backgrounds of students and the neighborhoods in which they live influence from an early age their opportunities to develop the set of skills, attitudes and behaviors that are required for academic success in school settings and that enable full advantage to be taken of the educational institutions available. While the need for the provision of special programs for the disadvantaged is obvious, significant problems are encountered in directing appropriate resources to the students whose need is greatest. Moreover, while efforts have been made through the development of preschool services and the Disadvantaged Schools Programs of the Commonwealth Schools Commission, it is clear that these efforts have not given rise to demonstrable and substantial changes in the level of educational outcomes of achievement and attitudes. The path to be followed to overcome these educational handicaps is difficult and the problems encountered are complex. The evidence presented would appear to indicate that a series of sustained programs is required from an early age if the needs of students with an extreme level of socioeconomic disadvantage are to be met. The challenge at the present time is whether, from the research undertaken in Australia and overseas, it is possible to identify guidelines or strategies that might be employed to establish appropriate programs. These programs would contribute to overcoming the problems that confront some of our children during their years of schooling and their preparation to live a constructive adult life, as well as to changing Australian society in order to reduce the social inequalities which exist.

5. The Disadvantaged Schools Program

Following the publication in May 1973 of the report of the Interim Committee for the Australian Schools Commission (Karmel, 1973), legislation was passed to implement the recommendations of the committee. One of the central programs of the Schools Commission was and has continued to be the Disadvantaged Schools Program. The Commission from the outset has not viewed the program as one of a compensatory nature directed towards individuals, but rather one of participatory school development that has encouraged disadvantaged schools to introduce practices which would make them more effective in serving educationally disadvantaged groups. The Act which established the Schools Commission defined a "disadvantaged school" as a school:

(a) the students at which, or a substantial proportion of the students at which, are members of a community which, for social, economic, ethnic, geographic, cultural, lingual or similar reason, has a lower than average ability to take advantage of educational facilities; and
(b) which requires special facilities (whether in the form of buildings, equipment, teaching staff or in some other form) for the purpose of enabling the school to provide adequate educational opportunities for the students at the school.
(Australia, Schools Commission Act, 1973, pp.2–3.)

The Commission was guided in the goals that it sought for the Disadvantaged Schools Program by the discussion contained in the report of the Interim Committee. The three broad objectives of the program may be stated, by quoting, in part, from that report:

1. "to vary school programs in ways which will enable disadvantaged children to learn more successfully", in order that children might "be assisted to gain the fundamental skills necessary to participate fully and equally in society, and have the opportunity to share in its culture";
2. to seek to make schooling "enjoyable and fruitful in itself, not merely in preparation for later life" by ensuring that learning takes place in "pleasant surroundings, in a satisfying community, and in a program of activities which is meaningful to its participants, besides being relevant preparation for a later interest in work and learning"; and
3. "to evolve through successful interaction with their communities into new 'open' institutions, less alienated from their communities".
(Quotations selected from Karmel, 1973, pp.93–94.)

While the Schools Commission was in a position to coordinate the programs that evolved, each of the State and territorial Departments of Education maintained responsibility for the activities that were introduced in each of their domains. In addition, provision was made for the disbursement of moneys to nongovernment schools throughout Australia which were identified as being in need. In order to identify schools that would be eligible for grants, use was made of the results of the social area analyses conducted by the Commonwealth Bureau of Census and Statistics for the Interim Committee, in which a scale of

social disadvantage was constructed and from which lists of disadvantaged schools had been prepared using that scale. However, five of the six State systems made alterations to the lists based on findings from extensive surveys conducted in their schools during 1974. In the remaining State, the administration of the program was delegated to regional committees that had close knowledge of the schools, and similar procedures were adopted within the Catholic school systems.

In keeping with the three objectives of the Disadvantaged Schools Program, schools were encouraged to make submissions for grants as a result of discussions within the schools, and between the staffs of the schools and the committees which supported the schools. Thus the program sought from the outset to establish and strengthen links between the schools and the communities they served. Although all systems required their schools to present proposals for funding and sought to fund eligible schools in response to the proposals submitted, all were influenced, to some extent at least, by a school's entitlement as seen in terms of its level of disadvantage and the size of its enrolment. Furthermore, field consultants were subsequently appointed to assist schools in making submissions that would be consistent with the objectives of the program and that would enable schools to combat the disadvantage existing within them. As a consequence of these procedures, there were many imaginative projects advanced that fulfilled the basic objectives of the program to overcome educational and social deficiencies.

Evaluation Studies

The Schools Commission has recognised the need for evaluation in a program of this kind, and has advocated that both schools receiving funding and the State systems should undertake evaluation studies of their activities. Over the period in which the program has been operating, four reports of evaluation studies have been released and a fifth report is available as an unpublished thesis. These documents have provided strong endorsement for the program as it was conceived, as well as providing accounts of how the program has operated in different settings. The Schools Commission issued a report of the *Implementation of the Disadvantaged Schools Program 1974–76* (Cassidy, 1978) which reviewed the operations of the program across Australia. The South Australian Education Department published a report by Waters (1978), the *Priority Project Schools Report*, which examined the first years of the Schools Commission's Disadvantaged Schools Program in South Australian State primary and area schools. More recently, the Queensland Department of Education has published a report (Dean, 1983) on the *Evaluation of the Special Program Schools Scheme*. In addition, Malcolm, Elsworth and Day (1983) have prepared a report on an evaluation of the Supplementary Grants Program in Victoria. Furthermore, a thesis by Dawson (1982) was submitted to the University of New England on "a comparative study of Catholic schools which have been declared disadvantaged and those which have not, and their degree of innovativeness". Subsequently, a note on this work was published (Thomas, Dawson and Lane, 1984).

The range of programs introduced at the school level has been very varied. Dean (1983) recorded for the years 1979–81 the numbers of programs supported, the total value, and the average value of the funding provided for projects classified under the headings: classroom curricula, capital expenditure, equipment (audiovisual, reception and reprographics), recreation, outdoor, personnel and excursions. The most frequent type of project involved the purchase of equipment and materials, less frequently additional personnel were employed and excursions were conducted. The majority of projects were directed towards curriculum enrichment and extracurricular activities. Less frequently, the projects involved community support and remedial activities. Waters (1978), reporting on the early years of the program in South Australia, considered projects that involved buildings and grounds development, staffing, excursions and camping, electives outside school hours, activities for children below school age and their parents, development of drama and expressive arts, development of reading and the basic skills, and the development of positive attitudes. In addition to considering the school-based projects, Cassidy (1978) reported on projects instituted or developed at a central level. Many of the projects at the central level were associated with the promotion and assessment of the program itself, but they also included the development of curricula by a number of classroom teachers in a group of schools, regional camping and excursion programs, projects across a number of schools for the development of language in preschool children, and the outfitting of a special bus with resources which were demonstrated to country teachers.

The evidence presented in these reports indicated that the program increased the level of innovativeness of schools and teachers (Dawson, 1982). Moreover, it is clear that schools responded with enthusiasm and creativeness to the opportunity given to them by the Disadvantaged Schools Program to identify their needs and develop proposals for projects which would meet those needs. There were many responses at the school and system level which indicated an increased degree of participation by teachers, parents and the community in school-based activities. While it is recognised that schools that have been identified as disadvantaged have particular problems and difficulties, the overlap between the objectives and operation of the Disadvantaged Schools Program (or the Priority Schools Program, as it became known) and those of the Innovations Program of the Schools Commission are obvious. After the abandonment of the Innovations Program in 1981, the Disadvantaged Schools Program remained to fulfil its specified role.

In the decade from 1974 to 1984, there has been a marked increase in the resource levels of the most disadvantaged schools, and no longer is there the acute need for the provision of additional funding for such schools with respect to buildings, equipment or personnel that there was in the early days of the program. Moreover, the function of the program to raise the morale of teachers, students and schools by the receipt of funding for special purpose projects was an important element of the program. Dean (1983) concluded his report with the comment that the Disadvantaged Schools Program generated experiences in schools that:

appear to best fit objective (ii): "to provide an enjoyable and fruitful schooling that is meaningful and satisfying in itself, not merely a preparation for later life". To a lesser extent, objective (i) was satisfied: "assisting children to gain fundamental skills necessary to participate fully and equally in society and have the opportunity to share in its culture". Despite notable exceptions, it is doubtful that there is a general implementation of objective (iii): "to allow schools to interact with their communities so that they become 'open' institutions". (Dean, 1983, p.66.)

The failure to achieve the third objective, which sought to foster the interaction between schools and their communities, was supported by evidence obtained from a study in New South Wales reported by Nebauer and Sungaila (1980) and the evaluation conducted by Malcolm, Elsworth and Day (1983). Whether the general satisfaction with the program expressed by those receiving grants arose from the developmental and innovative nature of the projects, or from the competitive nature of the system of funding, with the pleasure of winning a grant, or from the greater variety in school life that arose from the introduction of a new activity as the result of the grant to undertake a project, is unclear. However, it would seem desirable that, in the future, consideration should be given as Dean (1983) has suggested to an examination of how the Disadvantaged Schools Program could best achieve the general objectives of the scheme. In addition, it would seem desirable that consideration should be given to whether the general objectives of the program might be more tightly focused towards producing more effective schools. Reviews of the program also need to take into consideration the changing ideology that has occurred in statements explaining the rationale underlying the program referred to in Chapter 2. In addition, the change that has taken place in its name in several States from the Disadvantaged Schools Program to the Priority Schools Program should be noted. This shift would seem to involve a rejection by some school systems of attaching a label which identified particular schools as disadvantaged.

Research Studies

The widespread interest in the Disadvantaged Schools Program throughout Australia gave rise to several small research studies that examined different aspects of the program. King (1978) considered the need to promote community–school relationships in disadvantaged areas if the third objective of the Disadvantaged Schools Program was to be fulfilled. The Community School Relations Program was very effective in achieving the goals set for it. However, the evaluation study could not determine whether the best way had been adopted to train teachers to become change agents in order to improve community–school relationships in disadvantaged schools.

Dawson (1982) reported that the Disadvantaged Schools Program increased the level of innovation in schools, and that teachers responded with enthusiasm and creativeness to the opportunities provided for them to identify needs, to develop project proposals, and to undertake activities which would meet those needs. However, Steer (1981), in a study in Victoria, found that the differences in level of job

satisfaction between teachers in declared disadvantaged schools and in undeclared schools were not significant. Warner (1978), in Queensland, found that the smaller class groups which were set up for socially and culturally deprived students led to improved social attitudes among students, and that these more favorable attitudes and the consequent changes in behavior allowed more formal learning situations to be established. Nonetheless, O'Brien (1984) was unable to find evidence of a greater level of classroom misbehavior among disadvantaged students, in spite of the strong views of teachers which had been reported and which had led him to expect such behavior. Waters (1981), in a study in South Australia, found that the self-concepts of low socioeconomic status students did not differ from those of other students, and that poor self-concept was not a limiting factor in the educational achievement of disadvantaged students. Mayes (1978) conducted a case study of a cross-age tutoring program, and reported favorable results in the development of the skills of literacy and numeracy both for the taught and the tutor groups of students.

Further work has been undertaken during recent years in attempts to improve the indices of educational disadvantage that have been used to identify the schools which should receive priority funding. Linacre, Karmel, McBurney and McEwin (1980) and Ross (1984) have provided descriptions of the procedures employed to develop revised indices that would have greater reliability and validity than the various relative crude indicators that were being used in practice in the different States. Subsequently, Ross, Farish and French (1985) carried out further research into the development of a national indicator of disadvantage which could be used by the Commonwealth Schools Commission for the triennium 1986–88. The indicator was expected to provide an accurate and economic basis not only for the allocation of resources to States and sectors, but also for the identification of schools that would be eligible to receive grants.

Related Programs

It is necessary to recognise that there are three other programs which have been proposed for schools during the past three years and which are seen to have some objectives in common with the Disadvantaged Schools Program. The Basic Learning in Primary Schools Program is primarily concerned with the development of skills in the areas of literacy, numeracy and communication in all primary schools, particularly for children aged 5 to 8 years. It would appear that the thrust of this program will be on the provision of curriculum material and on the professional development of teachers. The program will not be directed to the needs of particular schools where students with problems in the area of basic learning occur in greatest numbers. Moreover, it is important to recognise that the directions of the Disadvantaged Schools Program has been recently extended to include social and personal skills, particularly the skills of overcoming "powerlessness", namely the "capacity to make and accept responsibility for decisions, the willingness to take initiative and an ability to work cooperatively with others" (Ruby et al., 1985).

The second program is the Participation and Equity Program which has been discussed in Chapter 2. This program is more specifically directed towards postprimary schools and has more complex goals including a reduction in alienation towards schooling and increased retention at the postcompulsory levels of schooling. The third program, the Country Areas Program was introduced in 1982 as a separate program from the Disadvantaged Schools Program in order to meet the particular needs of students in rural areas. The needs of rural schools are not those of socioeconomic disadvantage, but of access to opportunities for education, the reduction in the diversity of the curriculum and extracurricular experiences which arise as a consequence of the reduced size of the schools, and the problems encountered by teachers living in isolated rural areas.

While these three programs have elements in common with programs concerned with socioeconomic inequality, the extent of overlap between these programs and the Disadvantaged Schools Program as it exists is slight. During the past decade, when the extent of poverty in Australian society has increased very substantially, it would appear evident that a very strong case could be argued for the extension of the Disadvantaged Schools Program to provide compensation for social and economic handicap.

Reviews of the Disadvantaged Schools Program

Recently, two reviews have been undertaken which have considered the effectiveness of the Disadvantaged Schools Program. The *Report of the National Review of the Disadvantaged Schools Program* (Ruby, et al., 1985) discussed the issue regarding the focus of the program on schools rather than on the needs of individuals, but rejected the latter approach on the grounds that it would involve labelling the students and would draw attention to their deficiencies. However, it neglected to ask the critical question of whether or not it was possible for schools to provide remedial help for those students who encountered significant learning handicaps without having detrimental effects on the students. To fail to provide students with learning disabilities the help needed to master the basic skills of literacy, numeracy and communication is a denial of social justice. Moreover, to contend that programs cannot be developed without the stigma associated with the identification of individual needs is a condemnation of the teaching profession. The recommendations of the report were for the maintenance of the Disadvantaged Schools Program largely in its present form, and for increased recognition being given to problems associated with gender, Aboriginality and non-English-speaking background.

The Quality of Education Review Committee (1985) drew attention to the magnitude of the current standing of the Disadvantaged Schools Program. For 1985, it had an allocation of nearly $36 million and provided assistance to approximately 420 000 students or 14 per cent of all enrolments at an average level of $85 per student in schools identified as being disadvantaged. In addition, the Committee made reference to other Commonwealth Government programs that sought to

compensate for socioeconomic disadvantage. The Secondary Allowances Scheme has assisted students to remain at school at Years 11 and 12. In 1984, this scheme catered for 61 495 students with a total expenditure of $54,7 million. Furthermore, the Children in Residential Institutions Program has provided for children living in welfare institutions and remand homes with a total allocation of a little more than $2 million.

The Committee addressed the issue of directing resources to compensate for socioeconomic disadvantage to schools or to individuals and drew attention to the desirability of providing assistance before the damage was done. The establishment of effective schools was considered to have the highest priority. Its recommendations for the Disadvantaged Schools Program were as a specific purpose program of limited life that, within the next few years, should be subsumed within more broadly-based agreements between the Commonwealth and the States, extended or terminated. In the meantime, the program should operate with a small number of simply stated objectives, and with a small number of predefined indicators of the effectiveness of the program. In addition, arrangements should be made for reporting that would allow progress towards the stated objectives to be noted, and there should be ongoing arrangements for the evaluation of the program. These recommendations would tighten very significantly the conditions under which grants were provided to State systems and to schools, and would serve to focus the grants on highly specific objectives that could be achieved in a limited period of time.

Conclusion

It would seem likely that within the foreseeable future there could be substantial changes in the provision made by the Commonwealth Government to compensate for the educational disadvantage experienced by schools and the students within them. The marked increase over the past decade in the numbers of children under the age of 15 years who were considered to be living in poverty has raised major social problems. Under these circumstances, it would seem essential that consideration should be given to the nature and extent of the policies and programs that might be introduced to combat socioeconomic disadvantage in Australian society.

6. Overcoming Educational Disadvantage

There is a need to set out some general principles for countering educational disadvantage, principles that go beyond mere descriptions of specific courses of action. The extensive program of educational research, together with the wide range of evaluation studies undertaken in Australia, Britain and the United States during the past twenty years, make it possible, if not to prepare a blueprint for the education of students with learning disabilities, at least to state some general principles which are derived from research and evaluation studies and which will guide the development of future compensatory programs. In this chapter, the review of research and evaluation studies recorded in the two previous chapters for the United States and Britain and for Australia will be considered, and a list of propositions which have resulted from this review will be presented as a summary of the findings. Each proposition or principle is accompanied by a brief commentary.

There are many similarities and differences between the programs which have been established in Australia, Britain and the United States, and, before attempting to specify the major propositions which may be derived from the research and evaluation studies, some aspects of the programs developed in these three countries that are worthy of consideration are noted. Blackburn (1983) has recently compared the Title 1 Programs in the United States to the Australian Disadvantaged Schools Program. It is, however, important to recognise that in each of these two countries, the program that she considered is only one of several important measures that have been undertaken to combat educational disadvantage in its many forms and to provide greater equality of opportunity. Thus, in the comparisons undertaken by Blackburn, some of the differences in emphasis between these two programs in the United States and Australia are a consequence of the incomplete coverage of the measures offered in each country to combat educational disadvantage.

Blackburn correctly points out that there are substantial problems associated with the idea of disadvantage. In the United States and Britain, as in Australia, there are differences in theoretical perspectives. These differences are not easily resolved, but it would appear that the British programs on the one hand provide additional resources to Educational Priority Areas for the upgrading of the conditions existing in schools so that the quality of education provided by these schools would be raised. On the other hand, in the United States, the emphasis is on the improvement of student performance with respect to traditional educational outcomes in an attempt to increase the equality of opportunity for individuals to compete successfully in society. The Australian Disadvantaged Schools Program is being conducted from a theoretical perspective that may well have shifted from 1974 to 1984, from one providing equality of opportunity for social mobility and advancement in education, to one in which the school is seen as the agent of change, and additional resources are provided to schools to promote change. The participatory nature of the program determines the direction in which change occurs.

The second major distinction between the United States and Australian programs which Blackburn (1983, pp.233–36) identified was between

schools or students as the unit of intervention of the programs. In the United States, the individual student is considered to be the unit and the programs, particularly Title 1 Programs, assume that student performance can be improved by supplementary instruction in the basic skills. This is best accomplished by identifying students in need, who have a low level of achievement, and providing them with remedial programs and direct instruction. Thus, the assistance received under Title 1 serves as a supplement to the education provided by a school, rather than forming an integral part of the work of the school. The approach by the Australian Disadvantaged Schools Program is radically different. Instead of focusing efforts on supplementary instruction for those students recognised as being in greatest need, it is considered that changes in the school's program would best help students from deprived communities to profit from their schooling. Blackburn (1983, p.234) reported from the Australian experience with programs for students of a non-English-speaking background, that the use of withdrawal classes in English, where students were taught by teachers paid from special funds, was commonly counter-productive. The work of the special teachers was largely uncoordinated with the work of the regular classroom teachers. The class teacher accepted little responsibility for providing assistance to the students' learning in a second language since the needs of such students were catered for by a special program. These same problems have been reported from the United States Title 1 Programs, and the shortcomings of withdrawal activities were noted in Chapter 2.

Australian schools declared eligible for the receipt of funding under the Disadvantaged Schools Programs do not automatically receive extra resources. Funds are only provided to schools on receipt of a proposal for action which has been developed at the school level. The quality of the proposal is assessed to determine whether it is generally consistent with the broad goals of the Disadvantaged Schools Program, and whether it has been formulated from an assessment of the needs of the school and the community being served. The program accepts that it is difficult to influence what happens in schools and classrooms, and in the long term, there is little alternative but to rely on the commitment and perceptions of the teachers within a school. The British approach was different in certain respects. It sought to improve directly the quality of primary schools in order that all children in those schools might benefit. In general, this was achieved, at least initially, by upgrading the resources provided for a school, through renovating buildings, providing materials and bringing into the school additional teachers and teachers' aides. A further important emphasis of the Educational Priority Area programs in Britain was to establish a stronger partnership between the home and the school for the benefit of the child's development.

A third issue of interest to Blackburn (1983, p.237) was concerned with the age groups covered by the programs. In the United States, 99 per cent of the students taking part in Title 1 Programs were in elementary schools, and in Britain, the Educational Priority Area programs were also directed towards primary schools. In Australia, approximately 70 per cent of the students benefiting from the Disadvantaged Schools Program were in primary schools. However, it has been noted in

discussions of educational issues in the United States, that major problems exist at the lower postprimary school or junior high school level. Likewise significant reforms are needed in Australia at the middle and senior postprimary school levels. The question of the best educational level for the greatest benefits to be obtained from the funds available for the education of disadvantaged students is clearly a matter for debate.

The issues advanced by Blackburn are important ones which need to be addressed in Australia in the future development of programs by the Commonwealth Schools Commission, the State and territorial Departments of Education, and the regional educational offices. While the theoretical questions associated with the nature of educational disadvantage and how it might be overcome cannot be ignored, it would appear beneficial to try to develop a set of principles or propositions, which have strong empirical backing, that can guide the establishment of priorities for educational programs for the disadvantaged and that can also be used in the more detailed planning of such programs.

The Propositions and Their Empirical Basis

1. *Programs to combat educational disadvantage must consider the three levels of operation—the community, the school and the individual, and if necessary separate programs should be established to provide for need at each level.* Differences in approach to the provision of programs to combat educational disadvantage would appear to arise from differences in orientation towards education in the three countries—the United States, Britain and Australia. The American public schools have traditionally been supported and controlled by the communities that they have served and there has always been a strong level of community participation. The programs that have been introduced in the United States have not sought to strengthen this link but rather to direct attention to individual students. In Britain, however, the schools have maintained a high level of autonomy under the control of the principals and teachers of each school, and the Educational Priority Area programs have sought to link the schools more closely to their communities, with the goal of not only improving the schools but also transforming the communities they served. In Australia, as Partridge (1968) has suggested, Australian schools have been concerned with the opportunities provided for individual students, while the links with the community have remained weak. Initially, the Australian programs were directed towards schools as advocated by the report of the Interim Committee for the Australian Schools Commission, but more recently greater interaction between schools and their communities has been sought, for example under the Participation and Equity Program (Australia, Commonwealth Schools Commission, 1984). It would appear desirable that all three levels of operation, communities, schools and individuals should be considered, if necessary, by separate programs which would be

directed towards problems related to educational disadvantage at each level.

2. *Educational disadvantage is experienced by individuals through lack of competence in the skills of reading, writing and numeracy, through lack of confidence in themselves, and through lack of motivation and aspiration for further learning.* From Australian studies there is clearly a greater level of probability that those lacking in competence in the basic skills will be unemployed and will not continue with their education beyond the end of the period of compulsory schooling. The growing dangers that within the foreseeable future such youth could form the core of an "educated underclass" cannot be denied. While mastery of the basic skills of literacy and numeracy is not the sole educational objective to be pursued by schools, there is evidence that attaining a threshold of performance is a necessary prerequisite for living a constructive adult life.

3. *The effects of educative influences experienced during the early years of life and the initial years of schooling are the most powerful.* The evidence from studies of human development and from the review of longitudinal studies of stability and change in human characteristics (see Bloom, 1964) established beyond question the importance and significance of this proposition. Furthermore, the reported difficulties experienced through intensive intervention programs to make measurable gains in performance on a range of educational outcomes over and above those achieved through regular schooling would appear to be clear evidence of the extent to which performance is determined largely during the early years of life and education.

4. *The educational environment of the home has a powerful long-term effect on cognitive and affective development.* It must be recognised that the effects of the home are persistent and cumulative. Thus, the long-term effects of the home environment which were developed through the Ypsilanti Perry Preschool Project (Weikart, 1984), exceeded effects which might have been accomplished through institutional-based programs. It is necessary to recognise that the home-based programs not only influence the child directly but also indirectly through changing the attitudes and behavior of the parents, which at all stages of education are found to have strong effects on the performance of the child.

5. *To overcome serious educational disadvantage, sustained programs are required.* In general, wherever short-term programs have been compared with longer term programs for the educationally disadvantaged the longer term programs have been found to have a significantly greater effect. While this is not unexpected, the difficulties experienced in producing measurable gains from programs for the educationally disadvantaged would seem to demand that longer term programs should be established and maintained. Two aspects of the findings from the Sustaining Effects Study (Carter, 1984) are of considerable interest. First, the performance of moderately disadvantaged students, as assessed by achievement, was clearly increased by remedial instruction and the

students were significantly less likely to require further remedial assistance. Thus for this group of students the programs provided were beneficial. However, the performance of the most disadvantaged students, as assessed by achievement, was not, in general, raised by remedial instruction. It is evident that intensive and sustained remedial instruction would be required to assist such students. The nature of the deficits built up over several years of experiencing the conditions of educational disadvantage are not overcome by short-term programs which are not sustained over an extended period. Evaluation studies in the preschool field which report that the effects of initial programs of intervention are not maintained over a period of more than one year, would appear to have established a strong case for the sustaining of such programs either in the classroom or in the home, and preferably in both.

6. *Programs of individual tuition are the most powerful.* Bloom (1984) has presented evidence of the powerful effects of individual tuition. These findings are supported by the meta-analysis studies reported by Glass and Smith (1978) and Smith and Glass (1979) of the effects of individual and very small group instruction on student achievement and attitudes. In particular, this work showed that very substantial gains could be made from individual tuition. However, for such tuition to be highly effective an experienced and competent teacher would be required. While lesser gains are reported from studies of peer and cross-age tutoring (Bloom, 1977) the effects of these strategies are of consequence and cannot be ignored (Walberg, 1984). The high costs of individual tuition, and, if such practices became widespread, the shortage of effective tutors, would operate against any extensive use of this instructional approach.

7. *Teachers of disadvantaged students should use strategies of complete learning for the teaching of the skills of reading and number work.* Bloom (1984) has argued strongly for the employment of strategies of complete learning where the attainment of a graded sequence of skills, the acquisition of a prescribed body of knowledge, and its application in a sequence of tasks are involved. The strategies would use practices that research into teaching and learning (Walberg, 1984) has shown to be particularly effective in the normal classroom situation: reinforcement, feedback and correctives, cues and explanation, effective time on task, homework (graded or assessed), and high teacher expectations. The effective use of such strategies requires a curriculum that has been carefully developed with a graded sequence of tasks. Elementary mathematics and work with number, and the development of reading are two areas of the school curriculum where it is feasible to proceed in this way. The same procedures can be applied effectively with small class or tutorial groups, but it is important to recognise that the strategies associated with complete learning do not require small student groups and can be employed successfully in the normal classroom situation.

8. *The teaching of disadvantaged students requires effective schools.* The specific characteristics of effective schools have proved

difficult to identify. Nevertheless, it is widely recognised that some schools are better than others and that these better schools are more effective in their teaching of both normal and disadvantaged students. Experience from the Disadvantaged Schools Program, which has been discussed in Chapter 5, has shown that the provision of sometimes relatively small sums of money can assist a school to increase its effectiveness. Clearly there are many factors that contribute to the establishment of effective schools. Each factor taken by itself might seem inconsequential, but if taken together in the appropriate combination they produce what is seen to be a school in which learning takes place in an environment where students receive systematic instruction within carefully developed courses. While research and evaluation studies have not fully identified the features of schools that make some schools more effective than others, there is widespread recognition, in both Australia and Britain, that increasing the overall effectiveness of a school is a sound way of combating educational disadvantage.

9. *Major determinants of success in education at the postcompulsory level are aspiration and motivation.* A student progresses through the stages of education from where learning is undertaken with a measure of compulsion to the stages where the student has a greater degree of choice in the type of education followed. In addition, the student has choice in the time assigned to learning as well as in the concentration of effort given to the learning task. Under these circumstances, the level of the aspiration of the student and degree of motivation to succeed affect significantly the levels of achievement and attainment reached. The aspiration and motivation of the student for learning, and thus the achievement of the student, are greatly influenced by the attitudes and aspirations of the parents (see, for example, Peaker, 1967) and by the attitudes and aspirations of the peer group in the school (see, for example, Coleman et al., 1966), as well as to a lesser extent by the expectations of the teacher for the student. It is clear that a major problem in teaching disadvantaged students at later stages in their education is the maintenance of a satisfactory level of motivation to ensure that they carry out the learning tasks provided. The danger is that repeated failure over a long period will prevent the disadvantaged or disabled student from continuing to try.

10. *For students at the postcompulsory level, financial incentives are important.* This is particularly true for those students in a marginal position who are uncertain whether or not to continue with further education and training. Moreover, the need for financial incentives is particularly important for those from a disadvantaged background, for whom alternative sources of adequate support while undertaking further study are not readily available. This is especially important where the risk of failure is significant. It is clear that for those students for whom there is little possibility of failure, and for whom the long-term financial benefits outweigh the short-term advantages foregone, the need for an immediate financial incentive is not so necessary. However, for the student from a deprived background, for whom the long-term gains are not so apparent, and for whom failure is a real possibility, the need for

financial support during further education and training cannot be denied.

11. *The provision of educational programs to combat disadvantage should occur at times of transition in the lives of children, youth and adults, which are considered to be the times when the programs will have the greatest effects.* Bloom (1964) has suggested that there are critical periods in the lives of children that may be identified as periods of greatest cognitive growth. The early years of a child's life and the years associated with beginning school are clearly critical times when there is need for the provision of programs for the disadvantaged. A further period which has emerged during the past decade in Australia, when educationally deprived young people are particularly vulnerable to the effects of disadvantage, is at transition from school to work, or what may be best viewed as a period of part-time education and training and part-time work. Other periods of transition in the lives of adults are times of marriage, the birth of children, particularly the first child, and times of loss of employment. These are all times when educational disadvantage creates special needs. It should be noted that current programs acknowledge the time of beginning school as important. Moreover, there is growing recognition that the period of transition from school to work is a time when services for the educationally disadvantaged might be provided.

12. *Both individuals and social groups differ in their levels of educational performance. Marked gains in performance are difficult to achieve both for individuals and social groups. However, clearly recognisable gains can be achieved through well-conducted programs.* The major studies that have been carried out during the past twenty years in the United States, Britain and Australia have shown repeatedly that large gains in educational outcomes are hard to achieve from programs concerned with educational disadvantage. Nevertheless, Lapointe (1984) has shown from the National Assessment of Educational Progress that clearly identifiable gains have resulted from programs in the United States. It is such gains that justify compensatory programs.

An Emerging Perspective

The writings of Connell (1977, 1982, 1985) and the research carried out within the framework of class analysis and theories of social and cultural reproduction lead to two areas of educational practice where reform might be envisaged. These research workers adopt a more radical position and argue for a reconstruction of society, carried out through democratic processes. They argue that the types of programs described above, which have been developed from and supported by empirical research, are inadequate to combat educational disadvantage since, by their nature, they do not change the processes of cultural and social reproduction. They propose the following developments.

1. The Democratic Curriculum. Hannan (1985) has proposed an alternative curriculum for schools that provides an analysis of society and the study of how society might be changed. These views are

similar to those advanced by Blackburn (1981) and would seem to be endorsed in proposals for curriculum change at the upper secondary school level (Victoria, Ministerial Review of Postcompulsory Schooling, 1985; Quality of Education Review Committee, 1985). The type of course proposed involves a study of work in society, but such courses would not replace the more discipline-oriented courses in the social sciences. The course would include the study of the nature and organisation of work since the industrial revolution and the impact of present changes in technology on the structure of the work force. It would promote equity by giving students from all backgrounds a basis for planning the directions of their own lives.

2. The Empowerment Skills. Education should ensure that the skills for the effective use of social power are available to all. These skills involve learning to work cooperatively towards a desired goal, accepting responsibility, taking initiative and participating in democratic decision-making processes. To achieve this educational goal, students at school should be given power to influence the running of the school within the structures provided for community-based participation in decision making. This would require the introduction of student councils and student representation on school councils. However, these changes would influence very few students within a school and more extensive practices would need to be developed.

These reforms are similar in kind and purpose to those sought for higher education in the early 1970s. However, whereas the student generation sought the changes on behalf of the student body, these reforms are being proposed by research workers, writers and teachers as part of an educational program for the students in schools.

Three questions must be considered. First, will these proposed reforms to the curriculum and operation of schools serve those who suffer from educational handicaps and disadvantage in learning as a consequence of their socioeconomic background? Secondly, is it possible to develop programs where simple objectives are stated, where there are indicators of the effectiveness of the programs, and where ongoing evaluation can be carried out in order to pursue these goals? Thirdly, would the leading students in schools who seek entry into institutions of higher education be interested in engaging in such programs, or would they prefer to follow the academic courses offered by schools?

Conclusion

During the past twenty years in Australia, Britain and the United States there has been a marked shift in orientation in the provision of educational services. The shift has been from providing more equal access and subsequently more equal opportunities for all to participate in educational programs, to the view that there are some, who because of the circumstances into which they were born or the conditions under which they live, have greater need for educational services. The policies that have been developed are no longer concerned with the equal provision of services, but rather with the equitable provision of services

to support and assist those in greatest need, and who thus have a claim on society for services which they are unable to provide for themselves.

Seven programs for greater equity in education can be derived from the principles advanced above.

1. Early Childhood Education Programs. These programs would cater for the child within the home, from the time of birth, if not before, to the time the child attends preschool. The programs would seek to influence the cognitive, emotional and physical development of the child during the early years, with the recognition that development during these years has a powerful long-term effect on the child.

2. Preschool and Early Schooling Programs. There is need within Australia to develop further preschool and child-care centres with soundly based educational programs to cater for children from disadvantaged backgrounds. These programs and those conducted during the early years of schooling should maintain close contact with the parents of the child.

3. Effective Schools Programs. The initial policies of the Disadvantaged Schools Program in Australia have been directed towards increasing the effectiveness of schools. However, too little attention has been given to the findings of research on the factors that influence school effectiveness.

4. The Use of Strategies of Complete Learning. Mastery of the basic skills of reading, number work and communication is essential for all students, in order that he or she might live effectively in Australian society. There is a growing body of research on the factors that influence learning in schools. Appropriate programs should be developed to ensure that every student achieves competence in these learning tasks.

5. Use of Strategies of Individual Tuition. While the stigma associated with identifying students with serious learning handicaps and the use of withdrawal procedures has shortcomings, it is widely recognised that strategies of individual tuition are the most effective in assisting students with learning problems. It seems likely that computer-based instruction could be used in the foreseeable future to provide intensive instruction akin to individual tuition.

6. Programs of Transition from School to Work. Young people from disadvantaged socioeconomic backgrounds are at risk in the transition from school to work. The proposals of the Committee of Inquiry into Labor Market Programs (1985) could provide the necessary programs to meet the needs of disadvantaged youth.

7. Programs of Second Chance Learning for Disadvantaged Adults. A range of services would appear to be required to meet the needs of disadvantaged adults. The recommendations of the Committee of Inquiry into Labor Market Programs (1985) should make a significant contribution towards this goal.

It would seem important that all seven areas should be recognised as ones where programs with an educational thrust could and should be developed to meet the needs of socioeconomically disadvantaged members of Australian society. There is danger that short-term and uncoordinated programs will be established that could fail to make a significant contribution to the resolution of the problems. Nonetheless, the recommendations of the Quality of Education Review Committee (1985, p.236) should be heeded, namely, to operate specific purpose programs on the basis of: (1) a small number of simply-stated objectives; (2) a small number of indicators of the effectiveness of the programs; (3) ongoing evaluation of the programs; and (4) regular reporting of progress towards the stated objectives.

Postscript

These proposals involve significant reforms for Australian education. However, it is necessary to recognise that the establishment of programs of equitable opportunities in education serve purposes, in addition to providing compensatory educational services for the disadvantaged. They provide a working out through democratic processes of the principles of fairness and justice at the school, system, State and national levels. The ultimate goals of the programs are not only measured in terms of greater equality of educational outcomes, however defined, or in the contribution of the programs to greater equality of earnings and conditions of life, but also in the extent to which they contribute to a united society built on principles of fairness and justice.

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During the past twenty years in Australia, Britain and the United States there has been a marked shift in orientation in the provision of educational services. The shift has been from providing more equal access and subsequently more equal opportunities for all to participate in educational programs, to the view that there are some, who because of the circumstances into which they were born or the conditions under which they live, have greater need for educational services. The policies that have been developed are no longer concerned with the equal provision of services, but rather with the equitable provision of services to support and assist those in greatest need, and who thus have a claim on society for services which they are unable to provide for themselves.

It is the purpose of this monograph to review the relevant research, carried out in Australia and overseas, and to make recommendations on how education systems in Australia might best provide effective and equitable programs.

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